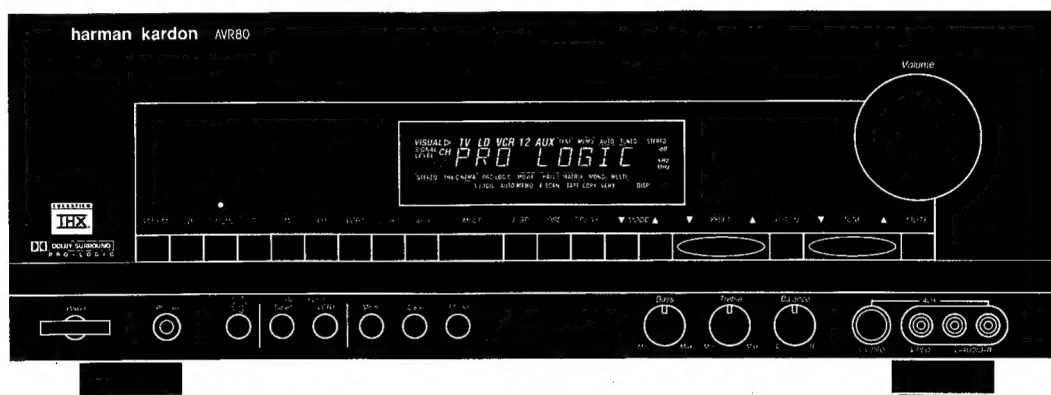


The Harman Kardon Model AVR80/AVR80MK II AUDIO AND VIDEO RECEIVER

Manual A

AVR80

Technical Manual



The following marks found in the parts list of this manual identify the models as follows.

- BK** AVR80 :North America area model Black version
(with Tact type mains switch)
- IB** AVR80 :International model Black version
(with Tact type mains switch)
- BK** AVR80MK II :North America area model Black version
(with Manual Operated Mechanical type mains switch)
- IB** AVR80[MOMS] :International model Black version
(with Manual Operated Mechanical type mains switch)

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harman/kardon

Parts and Service Office
80 Crossways Park West, Woodbury, N.Y. 11797
1112-AVR80 1200 Printed in Japan

SPECIFICATIONS

FRONT AMP SECTION

	Nominal	Limit
Continuous Power Output (STEREO MODE), Input: CD	≥110 W	≥100 W
THD: 0.09%, 8 ohms		
Both Channel Driven (20 Hz - 20 kHz) (SURROUND MODE)	≥85 W	≥75 W
THD: 0.3%, 8 ohms, 1 kHz		
THD at 100 W, 8 ohms, Input: CD		
20 Hz	≤0.03%	≤0.09%
1 kHz	≤0.01%	≤0.09%
20 kHz	≤0.05%	≤0.09%
IM Distortion at 100 W, 8 ohms, Vol: Max.	≤0.03%	≤0.09%
Input Sensitivity for Rated Power Output (100 W)		
CD/TAPE1/TAPE2/TV/LD	250 mV	220-290 mV
VCR1/VCR2/AUX	250 mV	220-290 mV
S/N Ratio Input Shorted at 1kHz 1W Output (WTD IHF-A)		
CD	≥82 dB	≥78 dB
Tone Control		
Bass: 100 Hz	+10 dB	+10 ±2.5 dB
	-10 dB	-10 ±2.5 dB
Treble: 10kHz	+10 dB	+10 ±2.5 dB
	-10 dB	-10 ±2.5 dB
Frequency Response at -3dB		
Mode: Stereo, Ref: 1 kHz, Sub Woofer: ON		
80 Hz - 70 kHz		90 Hz - 50 kHz
Mode: Stereo, Ref: 1 kHz, Sub Woofer: OFF		
10 Hz - 70kHz		15 Hz - 50 kHz
Channel Crosstalk Input Shorted by 1 kohms		
100Hz	≥55 dB	≥50 dB
1 kHz	≥45 dB	≥40 dB
10 kHz	≥35 dB	≥30 dB

CENTER AMP SECTION

	Nominal	Limit
RMS Output Power		
THD (0.3%, 8 ohms, 1 kHz)		
Only Center Channel Driven	≥110 W	≥100 W
S/N Ratio (Input Level : 141 mV)		
Input Shorted, IHF-A WTD	≥72 dB	≥68 dB
Frequency Response at-3 dB		
8 ohms, Dolby Pro-Logic	15 Hz - 22 kHz	30 Hz - 20 kHz

REAR AMP SECTION

	Nominal	Limit
RMS Output Power		
THD (0.7%, 8 ohms, 1 kHz)		
Only Rear Channel Driven	≥85 W	≥75 W
S/N Ratio (Input Shorted, IHF-A WTD)		
Delay : 20 ms, Input Level : 141 mV	≥72 dB	≥68 dB
Frequency Response at-3 dB		
8 ohms, Dolby Pro-Logic	15 Hz - 7 kHz	30 Hz - 6.5 kHz

SUB WOOFER SECTION

Line level at Pre out	Approx. 150 mVrms
Surround mode : Dolby Pro-Logic	
Center speaker mode : Large	
Input signal : L ch (only) 200mV	
Master volume : 0 dB	
Low pass crossover frequency	80 Hz cut off
Slope (Low Pass filter)	24 dB / octave

VIDEO AMP SECTION

	Nominal	Limit
Input Sensitivity/Impedance		
LD, TV, VCR1, VCR2, AUX	1 V _{P-P} /75 Ω	±1 dB
Output Level/Impedance		
VCR1, VCR2, Monitor	1 V _{P-P} /75 Ω	±1 dB
Frequency Response at-3 dB	DC-8 MHz	DC-6MHz

FM SECTION

	Nominal	Limit
Tuning Cover Range 50 kHz Step	87.50 - 108.00 MHz	
Mono Usable Sensitivity (75 ohms Input, 98 MHz)	≤13.5 dbf	≤19.2 dbf
Image Rejection (at 98 MHz)		
USA/Canada	>50 dB	≥40 dB
Europe	≥70 dB	≥60 dB
IF Rejection (at 98 MHz)	≥70 dB	≥65 dB
50 dB Quieting Sensitivity (at 98 Mhz, 100% MOD.)		
IHF Band Pass Filter		
Stereo	≤39.2 dbf	≤43.3 dbf
Distortion (1 kHz, 100% MOD. at 98 MHz, 65dbf Input)		
IHF Band Pass Filter		
Mono	≤0.2%	≤0.5%
S/N Ratio (500 μV Input, 100% MOD. at 98 MHz)		
IHF Band Pass Filter		
Stereo	≥65 dB	≥60 dB
Frequency Response (30 Hz - 15 kHz)		
USA/Canada De-Emphasis: 75μS	+0.5 dB	+1.0 dB
Europe De-Emphasis: 50μS	-2.0 dB	-4.0 dB
AM Suppression at 98 MHz	≥55 dB	≥45 dB
Muting Threshold (at 98 MHz)	27.2 dbf	23.3-32.0dbf
Overload Break-up at 98 MHz	71 dbf	65 dbf
Capture Ratio at 65 dbf	≤1.5 dB	≤2.5 dB
Stereo Separation (at 98 MHz, 100% MOD., 500 μV Input)		
IHF Band Pass Filter		
1 kHz	≥40 dB	≥30 dB
Tape out Level (at 98 MHz)	800 mV	600-1300 mV

AM SECTION

	Nominal	Limit
Tuning Cover Range (MW)		
USA/Canada : 10 kHz Step	520 - 1710 kHz	
Other : 9 kHz Step	531 - 1602 kHz	
Tuning Cover Range (LW)		
1 kHz Step	152 kHz - 282 kHz	
Usable Sensitivity		
MW at 999/1000 kHz	≤500 μV/m	≤800 μV/m
LW at 207 kHz	≤1500 μV/m	≤2500 μV/m
Image Rejection (at 999 kHz)	≥40 dB	≥35 dB
IF Rejection (at 999/1000 kHz)	≥60 dB	≥50 dB
Spurious Rejection (at 999/1000 kHz)	≥65 dB	≥55 dB
AGC Figure of Merit (From 100 mV/m at 999/1000 kHz)	≥55 dB	≥48 dB
Distortion (999/1000 Hz, 30% MOD. 50 mV/m Input)	≤1.0%	≤2.0%
Frequency Response (999/1000 kHz)		
at -3 dB	100 Hz - 2.2 kHz	150 Hz - 1.8 kHz
Selectivity (at 999/1000 Hz)		
9 kHz/10 kHz	≥30 dB	≥20 dB
18 kHz/20kHz	≥70 dB	≥60 dB
S/N Ratio (999/1000 kHz, With Antenna Input 50 mV/m)		
(Europe : Using 15 kHz L.P.F.)	≥50 dB	≥45 dB
Overload Break-up at 999/1000 kHz (THD 10%)	≥1000 mV/m	≥500 mV/m
TAPE Output Level at 999/1000 kHz (5 mV/m Input)	240 mV	150-340 mV

GENERAL

	Nominal	Limit
Power Consumption		
At Rated Power All Channel Driven	400 W	300 - 500W
Idling at Minimum Volume Control	55 W	45 - 65 W
Power Supplies :		
USA/Canada	AC 120 V, 60 Hz	
Europe	AC 230 V, 50 Hz	
Dimensions (W x H x D) :		
inches	17 1/16 x 6 3/32 x 18 1/16	
mm	444 x 160 x 459	
Weight (lbs/kgs)	32.0/14.4	

These specifications are service target specs.
 Specifications and components are subject to change without notice.
 Overall performance will be maintained or improved.

ELECTROSTATICALLY SENSITIVE (ES) DEVICES



Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by static electricity.

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging wrist strap device, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static" can generate electrical charges sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charge sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material.)
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

CAUTION: Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity sufficient to damage an ES device.)

PRODUCT SAFETY NOTICE

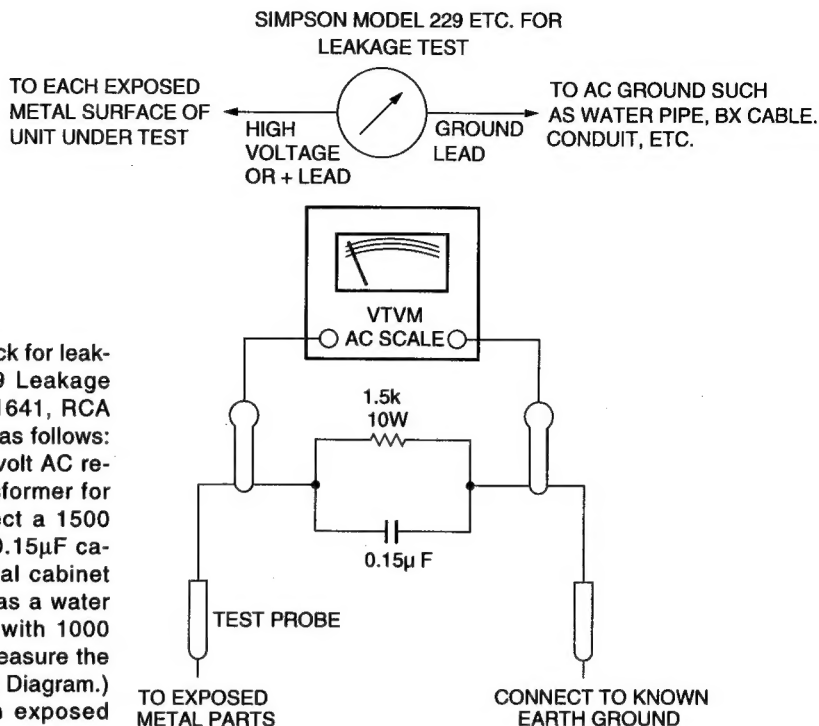
Each precaution in this manual should be followed during servicing.
 Components identified with the IEC symbol  in the parts list are of special significance to safety. When replacing a component identified with , use only the replacement parts designated, or parts with the same ratings or resistance, wattage, or voltage that are designated in the parts list in this manual.
 Leakage - current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

LEAKAGE TEST (FOR SERVICE ENGINEERS IN THE U.S.A.)

Before returning the unit to the user, perform the following safety checks:

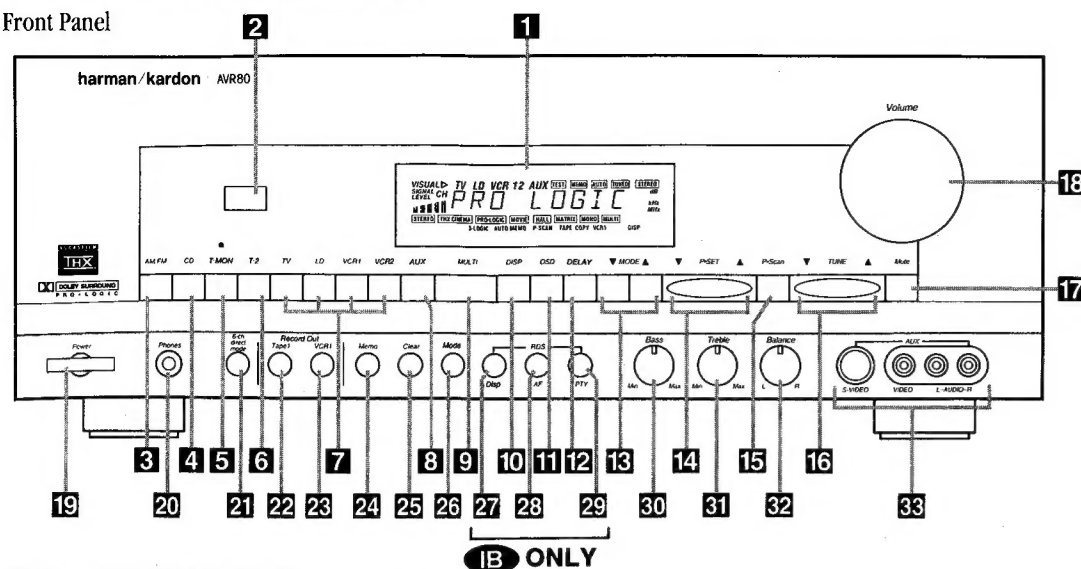
1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.
2. Be sure that any protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc. Which were removed for servicing are properly reinstalled.
3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows: Plug the power cord directly into a 120-volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a 1500 Ohm, 10-watt resistor paralleled by a 0.15 μ F capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 Ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See Diagram.) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the On and Off positions.)

A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.



CONTROLS AND FUNCTIONS

Front Panel



1 Information display: This display delivers messages and status indications to help you operate the receiver. Refer to the separate diagram for a complete explanation of the FL display.

2 Remote Sensor Window: The sensor behind this window receives infrared signals from the remote control. Aim the remote at this area and do not block or cover it unless an external remote sensor is installed.

3 AM/FM Tuner Mode Selection: Press this button once to select the tuner. Press it again to switch between FM, MW and LW.

4 CD: Press this button to select the CD player.

5 Tape1/Monitor: Press this button to select Tape One as the input source. A red LED above the button will illuminate to indicate that the Tape Monitor has been selected.

6 Tape 2: Press this button to select Tape 2.

7 Video Sources: Press any of these buttons to select a video input source.

8 Aux: Press this button to select the source connected to the front panel Aux jacks.

9 Multiroom Audio Select: Press this button to turn on the feed to the remote zone. The remote zone will stay on after the main power switch is turned off until it is switched off by the remote room control or by pressing this button again.

10 Display: Press this button to turn off the front panel FL display. The DISP indicator will illuminate to remind you that the unit is still turned on.

11 OSD (On Screen Display): Press the button briefly to display a system status report on your video screen. Press and hold the button to change the video standard.

12 Delay: Press this button to increase the delay to the rear (surround) channels.

13 Mode: Press these buttons to scroll up ▲ or down ▼ through the list of available surround modes.

14 P-Set: Press these buttons to manually scroll up ▲ or down ▼ through the stations programmed into the receiver's preset memory.

15 P-Scan: Press this button to automatically scan through the FM or AM stations preset into the receiver's memory. Press the button again to stop the scan when the tuner is at the desired station.

16 Tune: Press these buttons to manually scan up ▲ or down ▼ through the FM, LW or AM bands.

17 Mute: Press this button to cut the output to the speakers. Press it again to return to the previous volume level.

18 Volume Control: Turn the knob clockwise to increase volume, counterclockwise to decrease the volume. Note that approximately two revolutions of the knob are required to go from no output to maximum volume.

19 Power: press this button once to turn the unit on or off. In order to use the remote control to turn the unit on the power switch must be pressed once, and then the unit must be turned off via the remote. The LED indicator light surrounding the power switch will glow amber when the unit is in the Standby mode and green when the unit is on.

20 Headphone Jack: Plug standard stereo headphones into this jack for private listening.

NOTE: When the headphones are in use the output to the speakers is muted and the surround mode is automatically switched to STEREO. When the headphones are removed from the jack, sound to the speakers is restored and the unit returns to the previous sound mode.

21 6 Channel Direct: Press this button to select the output of an external multichannel audio adapter.

22 Tape 1 Copy: Press this button to select the source currently being listened to. Press again to select the input in the following order: Tuner → CD → Tape 2 → Source.

23 VCR1 Copy: Press this button to select the input to the recorder connected to VCR 1. The first press selects the input currently being viewed. Press the button again to select the input in the following order: TV → LD → VCR2 → AUX → Source

24 Memo: The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in clearing the memory and entering the sleep timer period.

25 Clear: The clear button is used to cancel tuning, memory input or when clearing the unit's memories.

26 FM Mode: Press this button to select the tuning mode for FM stations.

27 RDS Display: When a station transmitting RDS data is tuned, press this button to view the tuning frequency.

28 RDS AF: The button is used to search for stations transmitting a specific programme type that offers better reception than the currently tuned station.

29 RDS PTY: Press this button to view the programme type (PTY) when an RDS station is tuned. It is also used to initiate a search for RDS stations transmitting a specific programme type.

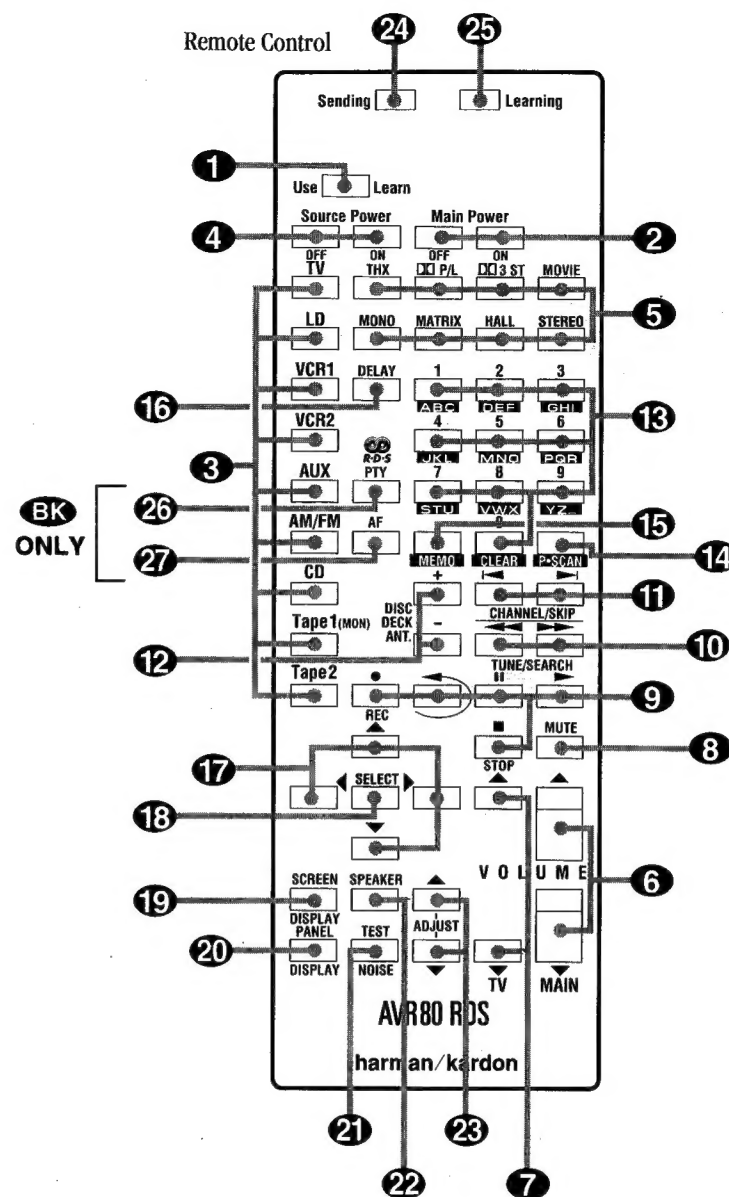
30 Bass: This knob adjusts the tone of low frequency sounds. Turn it to the right to boost bass frequencies or to the left to cut bass frequencies.

31 Treble: This knob adjusts the tone of high frequency sounds. Turn it to the right to boost high frequencies or to the left to cut high frequencies.

32 Balance: This knob adjusts the balance between the front left and right speakers.

33 Front Panel Inputs: Audio or Video sources connected to these jacks may be selected by pressing the Aux button 8.

Remote Control



1 Use/Learn: This switch selects the operation mode of the remote control. Slide it to the left for normal operation. Slide it to the right when the remote is being programmed.

2 Main Power: Press these buttons to turn the unit on or off.

3 Source Selection: Pressing one of these buttons selects the input source that will be listened to through the receiver. When a source is selected the remote's transport and numeric number buttons will also transmit the commands needed to control that machine.

4 Source Power: Press these buttons to control power for the last source device selected.

5 Surround Mode Selection: Press one of these buttons to select a surround mode for the current listening session.

6 Main Volume: These buttons control the unit's volume. Note that all channels are controlled simultaneously.

7 TV Volume: These buttons adjust the volume for TV using the remote control codes programmed into the remote for a TV set or cable box. These buttons control the TV set only, regardless of which source is selected. This enables you to control the audio level of a TV set even when the receiver is not in use.

8 Mute: Press this button to temporarily cut the audio output of the receiver. Press it again to return to the previous volume level.

9 Transport Controls: These buttons control the tape or disc motion of the last playback source selected with the Source Selection buttons 3. Use them as you would the Play, Stop, Pause, Reverse Play and Record buttons on any VCR, CD or LD remote control.

10 Tune/Search & Fast Forward: (These buttons have multiple functions, which vary according to the input device selected.)

a. When the **TUNER** has been selected, these buttons are used to manually tune stations.

b. When **CD**, **LD** or **VCR** is the input source, these buttons act as the Fast Scan Forward ►►► or Fast Scan Reverse ◄◄◄ controls.

11 Channel/Skip: (These buttons have multiple functions, which vary according to the input device selected.)

a. When the **TUNER** has been selected, these buttons will scroll up ►► or down ◄◄ through the stations that have been programmed in the preset memory.

b. When **TV** or **VCR** is selected, they are the channel up ►► or channel down ◄◄ tuning buttons.

c. When **CD** or **LD** is selected these buttons act as forward and reverse "Skip" buttons to move to the next track or chapter on the disc.

d. When a compatible Harman Kardon cassette player has been selected as **Tape 1** or **Tape 2**, these buttons move the tape forward ►► or backwards ◄◄ to the next selection using the Music Scan feature.

12 Disc/Deck/Ant: (These buttons have multiple functions, which vary according to the input device selected.)

a. When **CD** is selected and the unit is a CD changer, these buttons will change to the next disc + or previous disc -.

b. When **Tape 1** or **Tape 2** is the input source, and the tape machine is a compatible Harman Kardon dual cassette deck, these buttons will switch between the "A" and "B" sides.

c. When **VCR 1** or **VCR 2** is the input source, these buttons switch between VCR and TV as the unit's output.

d. When **TV** is the input source, these buttons may switch between video input sources or antenna/video, depending on the TV model.

e. When **LD** is the input source, these buttons will switch the side being played from "A" to "B" on compatible dual side players.

13 Number Keys: These buttons serve as a ten button numeric keypad to enter tuner preset positions. They are also to be used to select channel numbers when **TV** has been selected on the remote, or to select track numbers on a CD or LD player, depending on how the remote has been programmed. The letters below the buttons are used to enter information for tuner station names.

NOTE: The **0** button has a dual function. It also serves as the **CLEAR** button for use in programming the tuner or clearing the system memory.

14 P-Scan: Press this button to automatically scan through the stations preset into the tuner memory. Press the button again to end the scan when the tuner stops at the desired station.

15 Memo: The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in the process of clearing the memory.

16 Delay: This button controls the amount of sound delay to the rear (surround) channels. Press it to increase the delay in the steps shown in the main Information Display or on-screen graphics.

17 Menu Controls: These buttons control the action of the cursor or the selection of menu items when the receiver is being configured using the setup menus.

18 Select: This button enters settings to the receiver's memory during system configuration.

19 Screen Display: Press this button to activate the on screen menu system.

20 Panel Display: Press this button to turn off all displays and indicators in the Information Display except for a small **DISP** indication in the lower right corner of the display 12. Press the button again to turn the display back on. Note that the display will briefly illuminate when a command is sent to the unit from the front panel or remote, even though the display is turned off.

21 Test Noise: Press this button to begin calibration of the output level for each channel. A test signal will immediately be heard from the left front speaker and the **TEST** indicator 2 will flash.

22 Speaker Select: When setting the system output levels, this button selects the speaker position being adjusted. Press it once to advance to the next speaker after each position is adjusted.

23 Level Adjust: When setting the system output levels, press these buttons to increase or decrease the output level.

24 Sending LED: This indicator should flash any time a button is pressed to confirm that a command is being sent to the receiver or another unit. If the light is dim or does not illuminate when a button is pressed the batteries in the remote should be replaced.

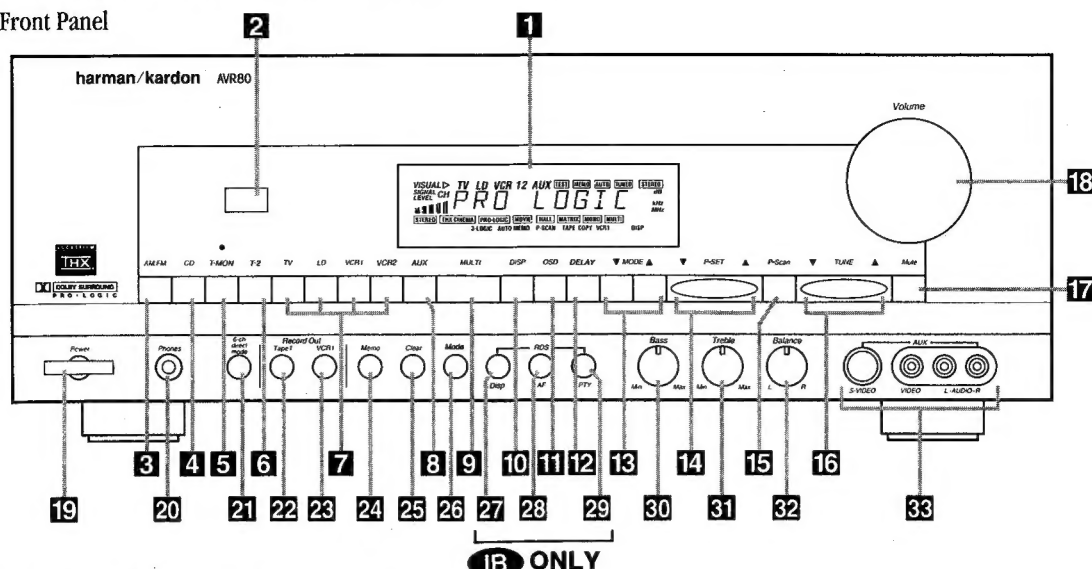
25 Learn LED: This indicator will illuminate when a button on the remote is being programmed with signals from another remote during the "learning" mode. The light will go out when the signal is received and memorized.

26 RDS PTY: Press this button to view the Programme Type information for stations transmitting RDS data. This button is also used for PTY Auto Search functions.

27 RDS AF: This button initiates a search of all RDS stations to find a stronger signal for the programme type currently selected.

CONTROLS AND FUNCTIONS

Front Panel



1 Information display: This display delivers messages and status indications to help you operate the receiver. Refer to the separate diagram for a complete explanation of the FL display.

2 Remote Sensor Window: The sensor behind this window receives infrared signals from the remote control. Aim the remote at this area and do not block or cover it unless an external remote sensor is installed.

3 AM/FM Tuner Mode Selection: Press this button once to select the tuner. Press it again to switch between FM, MW and LW.

4 CD: Press this button to select the CD player.

5 Tape1/Monitor: Press this button to select Tape One as the input source. A red LED above the button will illuminate to indicate that the Tape Monitor has been selected.

6 Tape 2: Press this button to select Tape 2.

7 Video Sources: Press any of these buttons to select a video input source.

8 Aux: Press this button to select the source connected to the front panel Aux jacks.

9 Multiroom Audio Select: Press this button to turn on the feed to the remote zone. The remote zone will stay on after the main power switch is turned off until it is switched off by the remote room control or by pressing this button again.

10 Display: Press this button to turn off the front panel FL display. The DISP indicator will illuminate to remind you that the unit is still turned on.

11 OSD (On Screen Display): Press the button briefly to display a system status report on your video screen. Press and hold the button to change the video standard.

12 Delay: Press this button to increase the delay to the rear (surround) channels.

13 Mode: Press these buttons to scroll up ▲ or down ▼ through the list of available surround modes.

14 P-Set: Press these buttons to manually scroll up ▲ or down ▼ through the stations programmed into the receiver's preset memory.

15 P-Scan: Press this button to automatically scan through the FM or AM stations preset into the receiver's memory. Press the button again to stop the scan when the tuner is at the desired station.

16 Tune: Press these buttons to manually scan up ▲ or down ▼ through the FM, LW or AM bands.

17 Mute: Press this button to cut the output to the speakers. Press it again to return to the previous volume level.

18 Volume Control: Turn the knob clockwise to increase volume, counterclockwise to decrease the volume. Note that approximately two revolutions of the knob are required to go from no output to maximum volume.

19 Power: press this button once to turn the unit on or off. In order to use the remote control to turn the unit on the power switch must be pressed once, and then the unit must be turned off via the remote. The LED indicator light surrounding the power switch will glow amber when the unit is in the Standby mode and green when the unit is on.

20 Headphone Jack: Plug standard stereo headphones into this jack for private listening.

NOTE: When the headphones are in use the output to the speakers is muted and the surround mode is automatically switched to STEREO. When the headphones are removed from the jack, sound to the speakers is restored and the unit returns to the previous sound mode.

21 6 Channel Direct: Press this button to select the output of an external multichannel audio adapter.

22 Tape 1 Copy: Press this button to select the input for the recorder connected to **Tape 1**. The first press will select the source currently being listened to. Press again to select the input in the following order:
Tuner → **CD** → **Tape 2** → **Source**.

23 VCR1 Copy: Press this button to select the input to the recorder connected to VCR 1. The first press selects the input currently being viewed. Press the button again to select the input in the following order:
TV → **LD** → **VCR2** → **AUX** → **Source**

24 Memo: The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in clearing the memory and entering the sleep timer period.

25 Clear: The clear button is used to cancel tuning, memory input or when clearing the unit's memories.

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32 Balance: This knob adjusts the balance between the front left and right speakers.

33 Front Panel Inputs: Audio or Video sources connected to these jacks may be selected by pressing the **Aux** button **8**.

BK ONLY

1 Use/L
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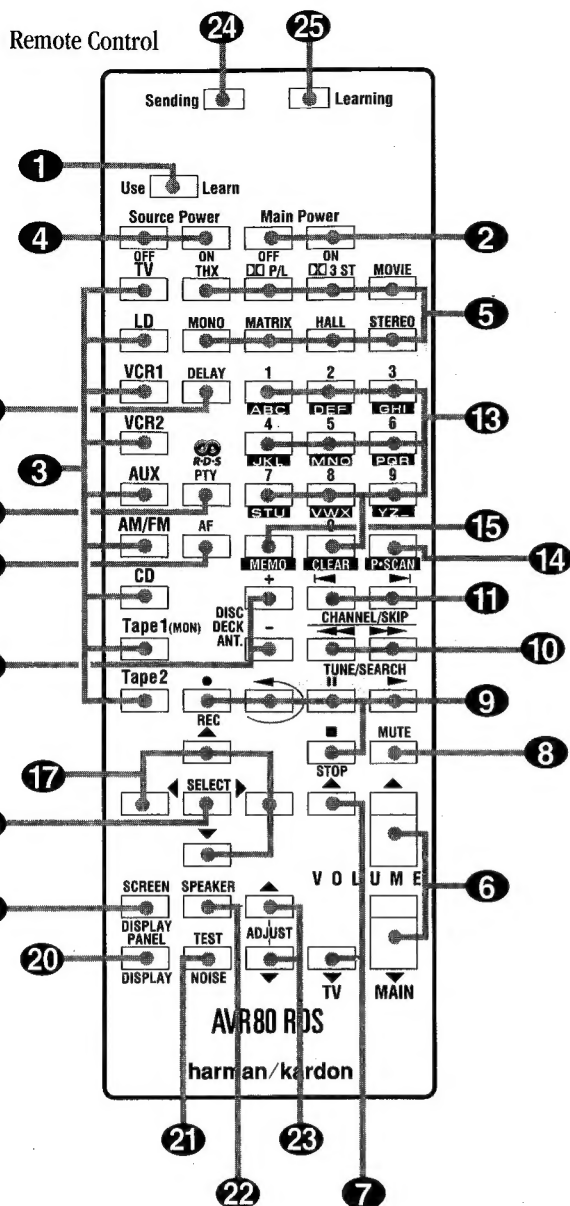
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b. When **CD**, **LD** or **VCR** is the input source, these buttons act as the Fast Scan Forward \blacktriangleright or Fast Scan Reverse \blacktriangleleft controls.

11 Channel/Skip: (These buttons have multiple functions, which vary according to the input device selected.)

a. When the **TUNER** has been selected, these buttons will scroll up \blacktriangleright or down \blacktriangleleft through the stations that have been programmed in the preset memory.

b. When **TV** or **VCR** is selected, they are the channel up \blacktriangleright or channel down \blacktriangleleft tuning buttons.

c. When **CD** or **LD** is selected these buttons act as forward and reverse "Skip" buttons to move to the next track or chapter on the disc.

d. When a compatible Harman Kardon cassette player has been selected as **Tape 1** or **Tape 2**, these buttons move the tape forward \blacktriangleright or backwards \blacktriangleleft to the next selection using the Music Scan feature.

12 Disc/Deck/Ant: (These buttons have multiple functions, which vary according to the input device selected.)

a. When **CD** is selected and the unit is a CD changer, these buttons will change to the next disc $+$ or previous disc $-$.

b. When **Tape 1** or **Tape 2** is the input source, and the tape machine is a compatible Harman Kardon dual cassette deck, these buttons will switch between the "A" and "B" sides.

c. When **VCR 1** or **VCR 2** is the input source, these buttons switch between VCR and TV as the unit's output.

d. When **TV** is the input source, these buttons may switch between video input sources or antenna/video, depending on the TV model.

e. When **LD** is the input source, these buttons will switch the side being played from "A" to "B" on compatible dual side players.

13 Number Keys: These buttons serve as a ten button numeric keypad to enter tuner preset positions. They are also to be used to select channel numbers when **TV** has been selected on the remote, or to select track numbers on a CD or LD player, depending on how the remote has been programmed. The letters below the buttons are used to enter information for tuner station names.

NOTE: The **0** button has a dual function. It also serves as the **CLEAR** button for use in programming the tuner or clearing the system memory.

14 P-Scan: Press this button to automatically scan through the stations preset into the tuner memory. Press the button again to end the scan when the tuner stops at the desired station.

15 Memo: The memo button is used to enter stations to the tuner's preset memory in either the manual or automatic modes. It is also used in the process of clearing the memory.

16 Delay: This button controls the amount of sound delay to the rear (surround) channels. Press it to increase the delay in the steps shown in the main Information Display or on-screen graphics.

17 Menu Controls: These buttons control the action of the cursor or the selection of menu items when the receiver is being configured using the setup menus.

18 Select: This button enters settings to the receiver's memory during system configuration.

19 Screen Display: Press this button to activate the on screen menu system.

20 Panel Display: Press this button to turn off all displays and indicators in the Information Display except for a small **DISP** indication in the lower right corner of the display **12**. Press the button again to turn the display back on. Note that the display will briefly illuminate when a command is sent to the unit from the front panel or remote, even though the display is turned off.

21 Test Noise: Press this button to begin calibration of the output level for each channel. A test signal will immediately be heard from the left front speaker and the **TEST** indicator **2** will flash.

22 Speaker Select: When setting the system output levels, this button selects the speaker position being adjusted. Press it once to advance to the next speaker after each position is adjusted.

23 Level Adjust: When setting the system output levels, press these buttons to increase or decrease the output level.

24 Sending LED: This indicator should flash any time a button is pressed to confirm that a command is being sent to the receiver or another unit. If the light is dim or does not illuminate when a button is pressed the batteries in the remote should be replaced.

25 Learn LED: This indicator will illuminate when a button on the remote is being programmed with signals from another remote during the "learning" mode. The light will go out when the signal is received and memorized.

26 RDS PTY: Press this button to view the Programme Type information for stations transmitting RDS data. This button is also used for PTY Auto Search functions.

27 RDS AF: This button initiates a search of all RDS stations to find a stronger signal for the programme type currently selected.

7 TV Volume: These buttons adjust the volume for TV using the remote control codes programmed into the remote for a TV set or cable box. These buttons control the TV set only, regardless of which source is selected. This enables you to control the audio level of a TV set even when the receiver is not in use.

8 Mute: Press this button to temporarily cut the audio output of the receiver. Press it again to return to the previous volume level.

9 Transport Controls: These buttons control the tape or disc motion of the last playback source selected with the Source Selection buttons **3**. Use them as you would the Play, Stop, Pause, Reverse Play and Record buttons on any VCR, CD or LD remote control.

10 Tune/Search & Fast Forward: (These buttons have multiple functions, which vary according to the input device selected.)

a. When the **TUNER** has been selected, these buttons are used to manually tune stations.

1 Use/Learn: This switch selects the operation mode of the remote control. Slide it to the left for normal operation. Slide it to the right when the remote is being programmed.

2 Main Power: Press these buttons to turn the unit on or off.

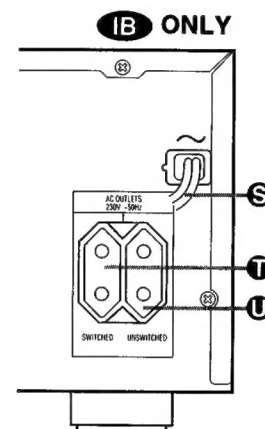
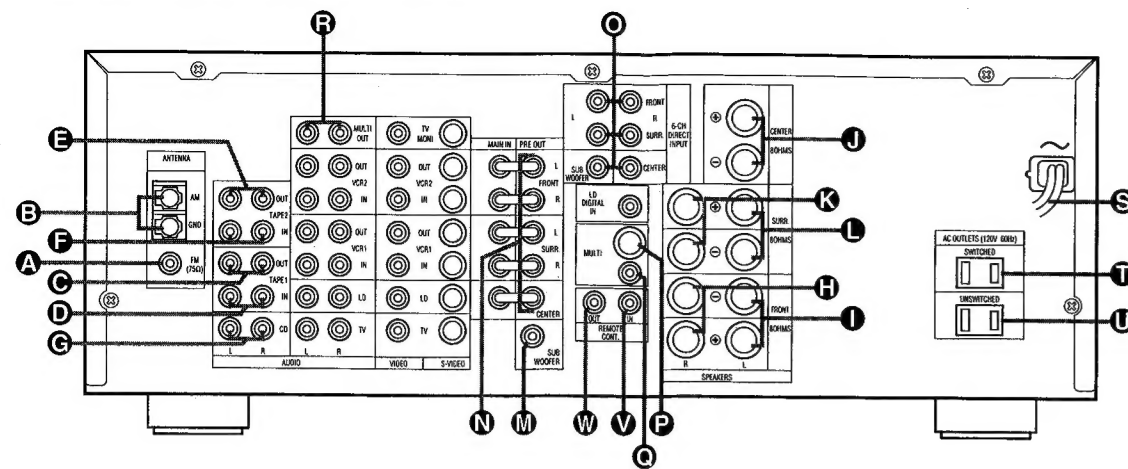
3 Source Selection: Pressing one of these buttons selects the input source that will be listened to through the receiver. When a source is selected the remote's transport and numeric number buttons will also transmit the commands needed to control that machine.

4 Source Power: Press these buttons to control power for the last source device selected.

5 Surround Mode Selection: Press one of these buttons to select a surround mode for the current listening session.

6 Main Volume: These buttons control the unit's volume. Note that all channels are controlled simultaneously.

Rear Panel – Audio and System Connections



A FM Antenna: Connect an indoor or external FM antenna to these terminals. Note that the supplied 300 ohm to 75 ohm adapter is required for connections from twin lead or inside dipole antennas.

B AM Antenna: Connect the AM loop antenna supplied with the receiver to these terminals. If an external AM antenna is used, make connections to the **AM** and **GND** terminals in accordance with the instructions supplied with the antenna.

C Tape 1 Out: Connect these jacks to the RECORD/INPUT jacks of an audio recorder.

D Tape 1 In: Connect these jacks to the PLAY/OUT jacks of an audio recorder.

E Tape 2 Out: Connect these jacks to the RECORD/INPUT jacks of a second audio recorder.

F Tape 2 In: Connect these jacks to the PLAY/OUT jacks of a second audio recorder.

G CD IN: Connect these jacks to the output of a compact disc player or CD changer.

H Front L: Connect these terminals to the front left speaker.

I Front R: Connect these terminals to the front right speaker.

J Center: Connect these terminals to the center speaker.

K Surround L: Connect these terminals to the left surround speaker.

L Surround R: Connect these terminals to the right surround speaker.

M Subwoofer Pre-Out: Connect this jack to the line level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input.

N Pre-Outs: If external power amplifiers are used for any channels, remove the connection pin and connect the jack to the input of the amplifier.

O 6 Channel Direct Input: If an external digital audio decoder is used for 5.1 (Dolby AC-3) audio, connect the outputs of that decoder to these terminals.

P Multi Room Interface: For multi-room installations where keypad remotes are in use, connect the keypad interface to this jack.

Q Multi IR: Connect the output of an IR sensor in a remote room to this jack to operate the AVR80's multi-room control system.

R Multi-Out: When using the AVR80 for multi-room audio, connect this jack to the input of the audio amplifier powering the remote room speakers.

S Power Cable: Connect the AC plug to a non-switched AC wall outlet.

T Switched AC Outlet: This outlet may be used to power any device that you wish to have on when the unit is turned on.

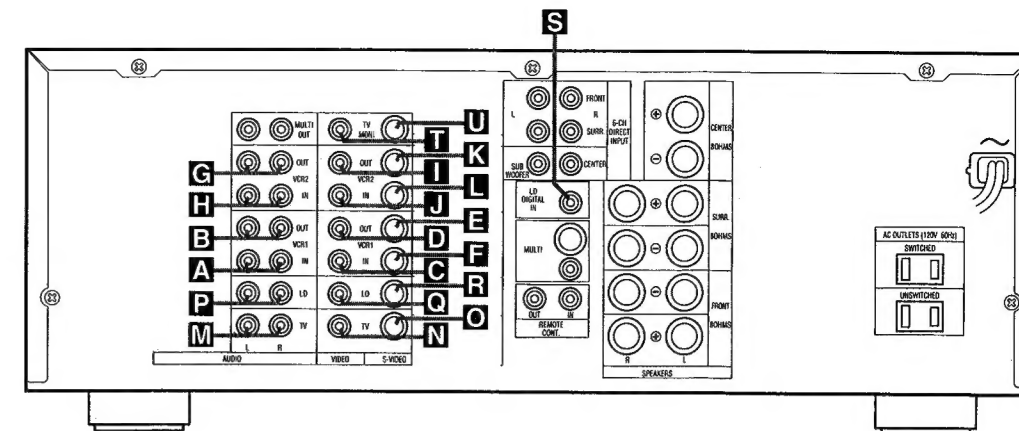
U Unswitched AC Outlet: This outlet may be used to power any AC device. The power will remain on at this outlet regardless of whether the AVR80 is on or off.

NOTE: The power consumption of the device plugged into each of these outlets should not exceed 120 watts.

V Remote IR In: If the AVR80's front panel IR sensor is blocked due to cabinet doors or other obstructions, an external IR sensor may be used. Connect the output of the sensor to this jack.

W Remote IR Out: This connection permits the IR sensor in the receiver to serve other remote controlled devices. Connect this jack to the "IR IN" jack on Harman Kardon or other compatible equipment.

Rear Panel – Video Connections



A VCR 1 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a VCR.

B VCR 1 Audio Out: Connect these jacks to the RECORD/IN audio jacks of a VCR.

C VCR 1 Video In: Connect these jacks to the composite video PLAY/OUT jacks of a VCR.

D VCR 1 Video Out: Connect these jacks to the composite video RECORD/IN jacks of a VCR.

E VCR 1 S Video Out: Connect these jacks to the "S" video RECORD/IN jacks of a VCR.

F VCR 1 S Video In: Connect these jacks to the "S" video RECORD/OUT jacks of a VCR.

G VCR 2 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a second VCR.

H VCR 2 Audio Out: Connect these jacks to the RECORD/IN audio jacks of a second VCR.

I VCR 2 Video In: Connect these jacks to the composite video RECORD/IN jacks of a second VCR.

J VCR 2 Video Out: Connect these jacks to the composite video PLAY/OUT jacks of a second VCR.

K VCR 2 S Video Out: Connect these jacks to the "S" video RECORD/IN jacks of a second VCR.

L VCR 2 S Video In: Connect these jacks to the "S" video RECORD/OUT jacks of a second VCR.

M TV Audio In: Connect the audio outputs of a TV, cable converter or satellite receiver to these jacks.

N TV Video In: Connect the composite video output of a TV, cable converter or satellite receiver to this jack. The signals received at this jack are also used to trigger the "TV Auto-On" feature.

O TV S Video In: Connect the "S" video output of a TV, cable converter or satellite receiver to this jack.

P LD Audio In: Connect the audio output of a laser disc player to these jacks.

Q LD Video In: Connect the composite video output of a laser disc player to this jack.

R LD S Video In: Connect the "S" video output of a laser disc player to this jack.

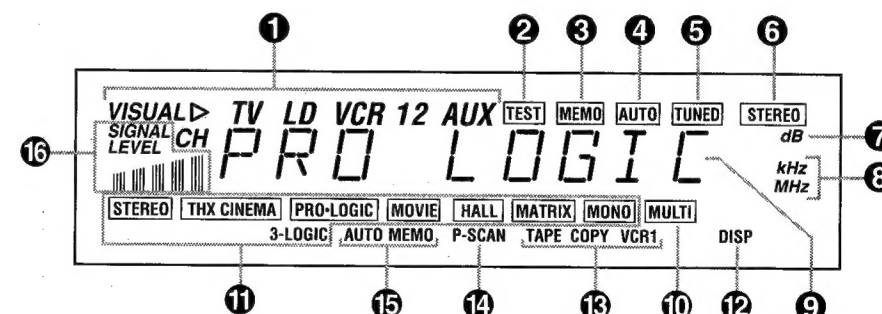
S LD Digital In: Connect the coax digital output of a laser disc or CD player to this jack.

NOTE: This connection is for standard, two channel PCM audio. DO NOT connect the modulated RF digital output used for multichannel (AC-3) audio to this jack.

T TV Monitor Video Out: Connect this jack to the composite video input of a TV monitor or video projector to view the on screen control menus and output of the receiver's video switcher.

U TV Monitor S Video Out: Connect this jack to the S video input of a TV monitor or video projector to view S video sources selected by the receiver's video switcher.

Information Display



1 "Visual" Indicator: These indicators display which input source is being fed to the video monitor output.

2 Test: This indicator flashes when the output levels are being set using the built in test signal generator.

3 Memo: This indicator flashes when the **Memo** button is pressed when entering presets and other information into the tuner's memory.

4 Auto: This indicator signifies that the Automatic Tuning mode is in use for FM broadcasts.

5 Tuned: This indicator lights when an AM or FM station is properly tuned and locked.

6 Stereo: This indicator lights when an FM station is broadcasting in stereo.

7 Volume Indication: The last two indicators on the information display indicate the volume level. Note that 0dB is the reference level, not an indication that there is no output.

8 Tuner Frequency Indication: When the tuner is in use, the main Information Display will show the preset channel number, if any, the frequency band and the station frequency. Indicators at the right side of the display show kHz when an LW or AM station is tuned or MHz when an FM station is tuned.

9 Main Information Display: This ten digit display shows messages relating to the status, input source, surround mode, tuner, volume level or other aspects of the unit's operation.

10 Multi: This indicator signifies that the AVR80 is sending a program source to a remote room location. Note that it may be illuminated even when the unit is "off" in the main listening room, signifying that operation continues at another location. When a remote command is being received via the **Multi** IR connection, this indicator will flash.

11 Mode Status: These indicators display the currently selected surround mode.

12 DISP: This indicator lights when the FL display has been turned off using the **Display** button **10** to remind you that the unit is still turned on.

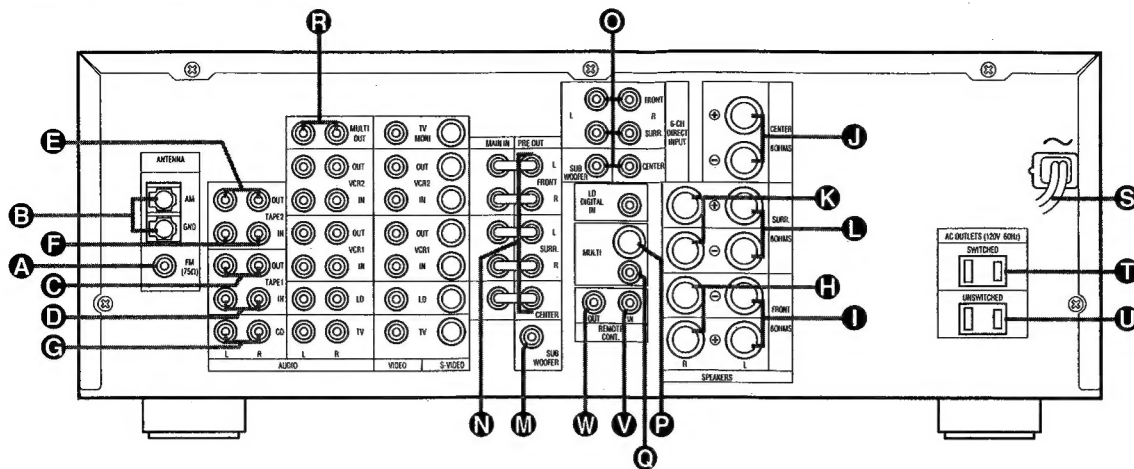
13 Copy Indicators: The TAPE COPY indicator lights when an input other than the current source has been selected to copy Tape 1. The VCR COPY indicator signifies that the input to VCR 1 is other than the currently selected source.

14 P-Scan: This indicator flashes when the stations programmed into the tuner memory are being automatically reviewed.

15 Auto Memo: This indicator flashes when the tuner is automatically scanning for stations and entering them into the preset memory.

16 Signal Level Indication: This is a visual indication of the strength of a radio station signal. The more bars visible, the stronger the station.

Rear Panel – Audio and System Connections



A FM Antenna: Connect an indoor or external FM antenna to these terminals. Note that the supplied 300 ohm to 75 ohm adapter is required for connections from twin lead or inside dipole antennas.

B AM Antenna: Connect the AM loop antenna supplied with the receiver to these terminals. If an external AM antenna is used, make connections to the **AM** and **GND** terminals in accordance with the instructions supplied with the antenna.

C Tape 1 Out: Connect these jacks to the RECORD/INPUT jacks of an audio recorder.

D Tape 1 In: Connect these jacks to the PLAY/OUT jacks of an audio recorder.

E Tape 2 Out: Connect these jacks to the RECORD/INPUT jacks of a second audio recorder.

F Tape 2 In: Connect these jacks to the PLAY/OUT jacks of a second audio recorder.

G CD IN: Connect these jacks to the output of a compact disc player or CD changer.

H Front L: Connect these terminals to the front left speaker.

I Front R: Connect these terminals to the front right speaker.

J Center: Connect these terminals to the center speaker.

K Surround L: Connect these terminals to the left surround speaker.

L Surround R: Connect these terminals to the right surround speaker.

M Subwoofer Pre-Out: Connect this jack to the line level input of a powered subwoofer. If an external subwoofer amplifier is used, connect this jack to the subwoofer amplifier input.

N Pre-Outs: If external power amplifiers are used for any channels, remove the connection pin and connect the jack to the input of the amplifier.

O 6 Channel Direct Input: If an external digital audio decoder is used for 5.1 (Dolby AC-3) audio, connect the outputs of that decoder to these terminals.

P Multi Room Interface: For multi-room installations where keypad remotes are in use, connect the keypad interface to this jack.

Q Multi IR: Connect the output of an IR sensor in a remote room to this jack to operate the AVR80's multi-room control system.

R Multi-Out: When using the AVR 80 for multi-room audio, connect this jack to the input of the audio amplifier powering the remote room speakers.

S Power Cable: Connect the AC plug to a non-switched AC wall output.

T Switched AC Outlet: This outlet may be used to power any device that you wish to have on when the unit is turned on.

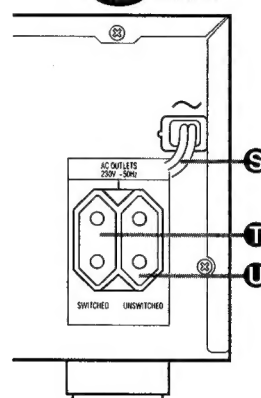
U Unswitched AC Outlet: This outlet may be used to power any AC device. The power will remain on at this outlet regardless of whether the AVR80 is on or off.

NOTE: The power consumption of the device plugged into each of these outlets should not exceed 120 watts.

V Remote IR In: If the AVR80's front panel IR sensor is blocked due to cabinet doors or other obstructions, an external IR sensor may be used. Connect the output of the sensor to this jack.

W Remote IR Out: This connection permits the IR sensor in the receiver to serve other remote controlled devices. Connect this jack to the "IR IN" jack on Harman Kardon or other compatible equipment.

IB ONLY



A VCR 1 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a VCR.

B VCR 1 Audio Out: Connect these jacks to the RECORD/IN jacks of a VCR.

C VCR 1 Video In: Connect these jacks to the composite VIDEO PLAY/OUT jacks of a VCR.

D VCR 1 Video Out: Connect these jacks to the composite VIDEO RECORD/IN jacks of a VCR.

E VCR 1 S Video In: Connect these jacks to the "S" VIDEO RECORD/IN jacks of a VCR.

F VCR 1 S Video Out: Connect these jacks to the "S" VIDEO RECORD/OUT jacks of a VCR.

Information Display

1 "Visual" Indicators: These indicators display which input is being fed to the video processor.

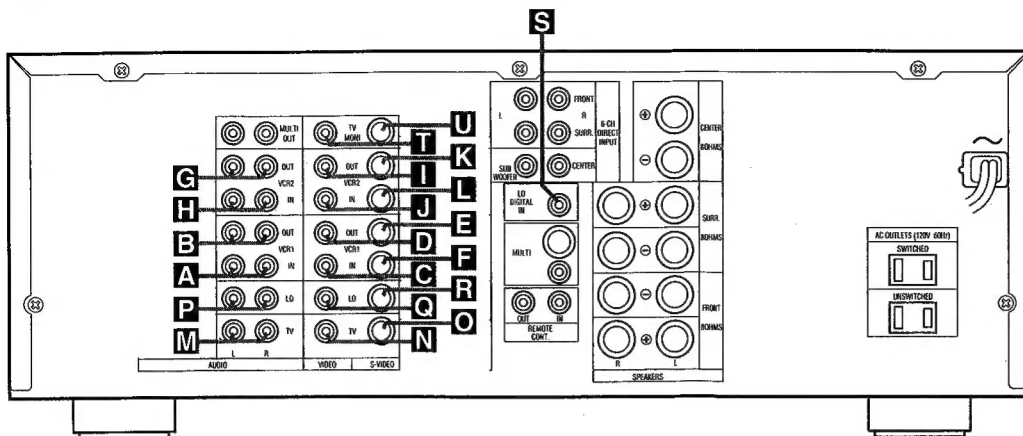
2 Test: This indicator shows the output levels are correct when the built in test signal is used.

3 Memo: This indicator shows when the Memo button is pressed when entering preset channels. Information is stored in the memory.

4 Auto: This indicator shows when the Automatic Tuning function is active for FM broadcasts.

5 Tuned: This indicator shows when an AM or FM station is tuned and locked.

Rear Panel – Video Connections



1 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a VCR.

1 Audio Out: Connect these jacks to the RECORD/IN audio jacks of a VCR.

1 Video In: Connect these jacks to the composite video IN jacks of a VCR.

1 Video Out: Connect these jacks to the composite video OUT jacks of a VCR.

1 S Video Out: Connect these jacks to the "S" video OUT jacks of a VCR.

1 S Video In: Connect these jacks to the "S" video IN jacks of a VCR.

G VCR 2 Audio Out: Connect these jacks to the audio jacks RECORD/IN of a second VCR.

H VCR 2 Audio In: Connect these jacks to the audio PLAY/OUT jacks of a second VCR.

I VCR 2 Video Out: Connect these jacks to the composite video RECORD/IN jacks of a second VCR.

J VCR 2 Video In: Connect these jacks to the composite video PLAY/OUT jacks of a second VCR.

K VCR 2 S Video Out: Connect these jacks to the "S" video RECORD/IN jacks of a second VCR.

L VCR 2 S Video In: Connect these jacks to the "S" video RECORD/OUT jacks of a second VCR.

M TV Audio In: Connect the audio outputs of a TV, cable converter or satellite receiver to these jacks.

N TV Video In: Connect the composite video output of a TV, cable converter or satellite receiver to this jack. The signals received at this jack are also used to trigger the "TV Auto-On" feature.

O TV S Video In: Connect the "S" video output of a TV, cable converter or satellite receiver to this jack.

P LD Audio In: Connect the audio output of a laser disc player to these jacks.

Q LD Video In: Connect the composite video output of a laser disc player to this jack.

R LD S Video In: Connect the "S" video output of a laser disc player to this jack.

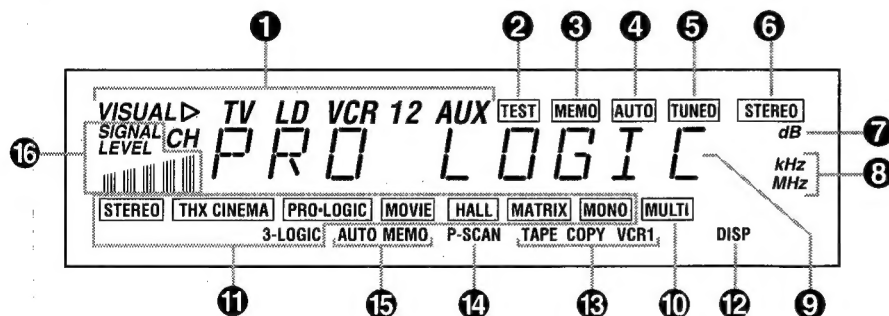
S LD Digital In: Connect the coax digital output of a laser disc or CD player to this jack.

NOTE: This connection is for standard, two channel PCM audio. DO NOT connect the modulated RF digital output used for multichannel (AC-3) audio to this jack.

T TV Monitor Video Out: Connect this jack to the composite video input of a TV monitor or video projector to view the on screen control menus and output of the receiver's video switcher.

U TV Monitor S Video Out: Connect this jack to the S video input of a TV monitor or video projector to view S video sources selected by the receiver's video switcher.

tion Display



Visual" Indicator: These indicators show which input source is selected to the video monitor output.

Test: This indicator flashes when the test signal generator is in use.

MEMO: This indicator flashes when the MEMO button is pressed, indicating that the unit is entering presets and other information into the tuner's memory.

Auto: This indicator signifies that the unit is in automatic Tuning mode and is scanning for broadcasts.

Lock: This indicator lights when the unit is properly locked.

6 Stereo: This indicator lights when an FM station is broadcasting in stereo.

7 Volume indication: The last two indicators on the information display indicate the volume level. Note that 0dB is the reference level, not an indication that there is no output.

8 Tuner Frequency Indication: When the tuner is in use, the main Information Display will show the preset channel number, if any, the frequency band and the station frequency. Indicators at the right side of the display show kHz when an LW or AM station is tuned or MHz when an FM station is tuned.

9 Main Information Display:

This ten digit display shows messages relating to the status, input source, surround mode, tuner, volume level or other aspects of the unit's operation.

10 Multi: This indicator signifies that the AVR80 is sending a program source to a remote room location. Note that it may be illuminated even when the unit is "off" in the main listening room, signifying that operation continues at another location. When a remote command is being received via the Multi IR connection, this indicator will flash.

11 Mode Status: These indicators display the currently selected surround mode.

12 DISP: This indicator lights when the FL display has been turned off using the Display button 10 to remind you that the unit is still turned on.

13 Copy Indicators: The TAPE COPY indicator lights when an input other than the current source has been selected to copy Tape 1. The VCR COPY indicator signifies that the input to VCR 1 is other than the currently selected source.

14 P-Scan: This indicator flashes when the stations programmed into the tuner memory are being automatically reviewed.

15 Auto Memo: This indicator flashes when the tuner is automatically scanning for stations and entering them into the preset memory.

16 Signal Level Indication: This is a visual indication of the strength of a radio station signal. The more bars visible, the stronger the station.

SERVICE PROCEDURE

1. Tracking point memory

This service procedure can be used for measurement of the tuner circuit.

With the POWER ON, press the "PRESET UP" button while pressing the "MEMO" button for at least 3 seconds or more. FLD will display "TRACKING". Frequencies will be memorized as follows :

	VERSION	P1	P2	P3	P4
FM	BK IB	90.0	98.0	106.0	87.5

	SCAN STEP	P5	P6	P7	P8	P9	P10	P11	P12~P30
MW	10 KHz	600.0	1000.0	1400.0	520.0	←	←	←	←
	9 KHz	603.0	999.0	1404.0	531.0	←	←	←	←
	LW	↑	↑	↑	171.0	207.0	270.0	152.0	531.0

2. FLD segment illumination

This service procedure will illuminate all segments by the following steps :

With the POWER ON, press the "FM/AM(TUNER)" button while pressing the "MEMO" button for at least 3 seconds or more. This procedure takes 1 minute and 40 seconds to finish; at this point the procedure is complete.

1. All segments will be illuminated for 5 seconds.

2. At the grid "1G", segments are illuminated in the following order :

① KHz → ② MHz → ③ R → ④ PEAK → ⑤ L → ⑥ MULTI → ⑦ MONO → ⑧ MATRIX →
⑨ HALL → ⑩ P-SCAN → ⑪ TAPE → ⑫ COPY → ⑬ VCR1 → ⑭ SLEEP → ⑮ DISP → ⑯ TX

3. At the grid "2G", to "11G", each segment is illuminated individually.

4. At the grid "12G", segments are illuminated in the following order:

① VISUAL → ② SIGNAL LEVEL → ③ CH → ④ SIGNAL BAR (LEFT SIDE) →
⑤ SIGNAL BAR (2nd LEFT) → ⑥ SIGNAL BAR (CENTER) → ⑦ SIGNAL BAR (2nd RIGHT) →
⑧ SIGNAL BAR (RIGHT SIDE) → ⑨ STEREO → ⑩ THX CINEMA → ⑪ PRO.LOGIC →
⑫ MOVIE → ⑬ AUTO MEMO → ⑭ 3.LOGIC → ⑮ SIMUL'D → ⑯ SURROUND

3. Selector check mode

This service program automatically operates input selector and surround mode by the following procedure. This service program continually repeats until power is shut off.

When the POWER ON, press the "SURROUND MODE+" button while pressing the "MEMO" button 3 seconds or more.

STEP	INPUT SELECTOR	DSP MODE	FM MODE BAND	FREQUENCY	COPY SWITCH		NOTES
					TAPE	VCR1	
1	FM	STEREO	AUTO	98.0	SOURCE	SOURCE	
2	FM	STEREO	MONO	LAST	↑	↑	
3	CD	THX	AUTO	LAST	↑	↑	
4	TAPE1	P-LOGIC	AUTO	LAST	TUNER	SOURCE	TUNER-ON
5	TAPE2	MOVIE	AUTO	LAST	SOURCE	TV	
6	TV	3 CH	AUTO	LAST	↑	SOURCE	
7	TV	HALL	AUTO	LAST	CD	LD	
8	LD	MATRIX	AUTO	LAST	TAPE2	TV	
9	VCR1	MONO	AM/MW	1000/999	TUNER	VCR2	
10	VCR2	STEREO	AUTO	98.0	TUNER	SOURCE	TUNER-ON
11	AUX	THX	AUTO	LAST	SOURCE	AUX	

4. All clear

This service program can clear all memorized operations and functions.

When the POWER ON, press the "CLEAR" button while pressing the "MEMO" button 3 seconds or more. FLD shows "CLEAR MEMO" and power will be OFF.

TEST EQUIPMENT REQUIRED

- 1) AM/FM Signal Generator
- 2) Video Signal Generator
- 3) Digital Multimeter
- 4) Distortion level meter

ALIGNMENT PROCEDURES

1. FM MONO. Distortion Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) MONO 1 KHz / Dev.40KHz 53.3% IB MONO 1KHz / Dev. 75KHz 100% BK	98 MHz (P2)	L201	Distortion level Minimum at TAPE-OUT

2. FM Muting Level Adjustment

Turn variable resistor R212 and stop at position "TUNED" is not shown (not indicated), then again turn the variable resistor R212 to the opposite revolution and stop at a position "TUNED" is shown.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	10 uV/m (20 dB/m) MONO 1 KHz / Dev.40KHz 53.3% IB MONO 1KHz / Dev. 75KHz 100% BK	98 MHz (P2)	R212	"TUNED" indicate on FLD
2			Over mentioned level +3 dB	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

3. FM STEREO Distortion Adjustment

Adjust the L channel with the RF signal modulated only L channel first and confirm the R channel with the RF signal modulated only R channel.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) L+R 1KHz / Dev. 40KHz 53.3% PILOT 19KHz / Dev. 6KHz 8% IB	98 MHz (P2)	IF COIL in FRONT END	Distortion level Minimum at TAPE-OUT
2			L+R 1KHz / Dev. 67.5KHz 90% PILOT 19KHz / Dev. 6.75KHz 9% BK		R218	Distortion level Minimum at TAPE-OUT

REMARK: Adjustment with R128 is not necessary when the distortion level is less than 0.5% with adjusting IF coil.

4. FM STEREO Separation Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	same specification as FM STEREO distortion adjustment. Input only L channel.	98 MHz (P2)	R211	Output level Minimum at TAPE-OUT channel R
2		98 MHz	same specification as FM STEREO distortion adjustment. Input only R channel.	98 MHz (P2)	R211	Output level Similar as Rch at TAPE-OUT channel L

SERVICE PROCEDURE

1. Tracking point memory

This service procedure can be used for measurement of the tuner circuit.

With the POWER ON, press the "PRESET UP" button while pressing the "MEMO" button for at least 3 seconds or more. FLD will display "TRACKING". Frequencies will be memorized as follows :

	VERSION	P1	P2	P3	P4
FM	BK IB	90.0	98.0	106.0	87.5

	SCAN STEP	P5	P6	P7	P8	P9	P10	P11	P12~ P30
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	LW	↑	↑	↑	171.0	207.0	270.0	152.0	531.0

2. FLD segment illumination

This service procedure will illuminate all segments by the following steps :

With the POWER ON, press the "FM/AM(TUNER)" button while pressing the "MEMO" button for at least 3 seconds or more. This procedure takes 1 minute and 40 seconds to finish; at this point the procedure is complete.

1. All segments will be illuminated for 5 seconds.

2. At the grid "1G", segments are illuminated in the following order :

① KHz → ② MHz → ③ R → ④ PEAK → ⑤ L → ⑥ MULTI → ⑦ MONO → ⑧ MATRIX →
⑨ HALL → ⑩ P-SCAN → ⑪ TAPE → ⑫ COPY → ⑬ VCR1 → ⑭ SLEEP → ⑮ DISP → ⑯ TX

3. At the grid "2G", to "11G", each segment is illuminated individually.

4. At the grid "12G", segments are illuminated in the following order:

① VISUAL → ② SIGNAL LEVEL → ③ CH → ④ SIGNAL BAR (LEFT SIDE) →
⑤ SIGNAL BAR (2nd LEFT) → ⑥ SIGNAL BAR (CENTER) → ⑦ SIGNAL BAR (2nd RIGHT) →
⑧ SIGNAL BAR (RIGHT SIDE) → ⑨ STEREO → ⑩ THX CINEMA → ⑪ PRO.LOGIC →
⑫ MOVIE → ⑬ AUTO MEMO → ⑭ 3.LOGIC → ⑮ SIMUL'D → ⑯ SURROUND

3. Selector check mode

This service program automatically operates input selector and surround mode by the following procedure. This service program continually repeats until power is shut off.

When the POWER ON, press the "SURROUND MODE+" button while pressing the "MEMO" button 3 seconds or more.

STEP	INPUT SELECTOR	DSP MODE	FM MODE BAND	FREQUENCY	COPY SWITCH		NOTES
					TAPE	VCR1	
1	FM	STEREO	AUTO	98.0	SOURCE	SOURCE	
2	FM	STEREO	MONO	LAST	↑	↑	
3	CD	THX	AUTO	LAST	↑	↑	
4	TAPE1	P-LOGIC	AUTO	LAST	TUNER	SOURCE	TUNER-ON
5	TAPE2	MOVIE	AUTO	LAST	SOURCE	TV	
6	TV	3 CH	AUTO	LAST	↑	SOURCE	
7	TV	HALL	AUTO	LAST	CD	LD	
8	LD	MATRIX	AUTO	LAST	TAPE2	TV	
9	VCR1	MONO	AM/MW	1000/999	TUNER	VCR2	
10	VCR2	STEREO	AUTO	98.0	TUNER	SOURCE	TUNER-ON
11	AUX	THX	AUTO	LAST	SOURCE	AUX	

4. All clear

This service program can clear all memorized operations and functions.

When the POWER ON, press the "CLEAR" button while pressing the "MEMO" button 3 seconds or more. FLD shows "CLEAR MEMO" and power will be OFF.

TEST EQUIPMENT REQUIRED

- 1) AM/FM Signal Generator
- 2) Video Signal Generator
- 3) Digital Multimeter
- 4) Distortion level meter

ALIGNMENT PROCEDURES

1. FM MONO. Distortion Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) MONO 1 KHz / Dev. 40KHz 53.3% IB MONO 1KHz / Dev. 75KHz 100% BK	98 MHz (P2)	L201	Distortion level Minimum at TAPE-OUT

2. FM Muting Level Adjustment

Turn variable resistor **R212** and stop at position "**TUNED**" is not shown (not indicated), then again turn the variable resistor **R212** to the opposite revolution and stop at a position "**TUNED**" is shown.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	10 uV/m (20 dB/m) MONO 1 KHz / Dev. 40KHz 53.3% IB MONO 1KHz / Dev. 75KHz 100% BK	98 MHz (P2)	R212	" TUNED " indicate on FLD
2			Over mentioned level +3 dB	AUTO SCAN	Only Confirm	" TUNED " indicate on FLD

3. FM STEREO Distortion Adjustment

Adjust the **L channel** with the RF signal modulated only **L channel** first and confirm the **R channel** with the RF signal modulated only **R channel**.

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	500 uV/m (54 dB/m) L+R 1KHz / Dev. 40KHz 53.3% PILOT 19KHz / Dev. 6KHz 8% IB	98 MHz (P2)	IF COIL in FRONT END	Distortion level Minimum at TAPE-OUT
2			L+R 1KHz / Dev. 67.5KHz 90% PILOT 19KHz / Dev. 6.75KHz 9% BK		R218	Distortion level Minimum at TAPE-OUT

REMARK: Adjustment with **R128** is not necessary when the distortion level is less than 0.5% with adjusting IF coil.

4. FM STEREO Separation Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to FM antenna terminal. (75 ohm)	98 MHz	same specification as FM STEREO distortion adjustment . Input only L channel.	98 MHz (P2)	R211	Output level Minimum at TAPE-OUT channel R
2		98 MHz	same specification as FM STEREO distortion adjustment . Input only R channel.	98 MHz (P2)	R211	Output level Similar as Rch at TAPE-OUT channel L

5. AM IF Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz IB 1000 KHz BK	300 uV/m (50 dB/m)	Tuning point	LA06	Output level (L or R) Maximum at TAPE-OUT

This adjustment is normally not necessary, because the coil LA06 is preset by the original supplier.

6. AM Tracking Adjustment (MW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	603 KHz IB 600 KHz BK	Level 300 - 400 uV/m Mod. 400 Hz 30%	603 KHz IB 600 KHz BK	LA01	Output level (L or R) Maximum at TAPE-OUT
2		1404 KHz IB 1400 KHz BK	Level 300 - 400 uV/m Mod. 400 Hz 30%	1404 KHz IB 1400 KHz BK	CA01	Output level (L or R) Maximum at TAPE-OUT
3	Repeat step 1 and 2 until level is at maximum reading.					

7. AM Tracking Adjustment (LW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	171 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	171 KHz	LA03	Output level (L or R) Maximum at TAPE-OUT
2		270 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	270 KHz	CA08	Output level (L or R) Maximum at TAPE-OUT
3	Repeat step 1 and 2 until level is at maximum reading.					

8. AM auto stop Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz IB 1000 KHz BK	500 uV/m (54 dB/m)	999 KHz IB 1000 KHz BK	RA11	"TUNED" indicate on FLD
2			1000 uV/m (60 dB/m)	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

REMARK: This adjustment is related to the FM muting Level Adjustment. The FM muting Level re-adjustment is necessary after this adjustment.

9. On Screen Display VCO Adjustment

Step	Input Signal Source and Connection	Measuring position	Measuring equipment	Input selector	Adjustment Point	Adjustment Value
1	Color bar or other standard video signal. Video signal generator output to LD video input.	IC QX60 26pin and GND.	DC voltmeter (Impedance > 10K ohm/V)	LD	CX67	2.5V +0.1V

REMARK: Connect the TV monitor to the monitor output terminal of the product.

10. Main amp idling current adjustment

- 1) With the power OFF, set semi – fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) on the PC board (PV04) to the center position.
- 2) Connect a digital voltmeter, set for the DC range, on the emitter resistor [R759 (Lch), R760 (Rch), R794 (Center ch)] on the PC board (PV04).
- 3) After the above, adjust the idling current as follows:
Turn the power ON and adjust semi – fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) while observing the digital multimeter indication.
The target value is 7.2 mV (20 mA).

All values are with no load on speaker terminals, volume set to minimum and no input with the unit switched to the CD position. Always allow the amplifier to stabilize for 10 minutes or longer prior to adjusting idle current.

11. Main amp DC offset adjustment

- 1) With the power OFF, connect a digital voltmeter, set for the DC range, to the speaker terminal.
- 2) After the above, adjust the DC offset as follows:
Turn the power ON and adjust RN63 (Lch), RN64 (Rch), RN70 (Center ch) so that the output is ± 20 mV.

5. AM IF Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz IB 1000 KHz BK	300 uV/m (50 dB/m)	Tuning point	LA06	Output level (L or R) Maximum at TAPE-OUT

This adjustment is normally not necessary, because the coil LA06 is preset by the original supplier.

6. AM Tracking Adjustment (MW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	603 KHz IB 600 KHz BK	Level 300 - 400 uV/m Mod. 400 Hz 30%	603 KHz IB 600 KHz BK	LA01	Output level (L or R) Maximum at TAPE-OUT
2		1404 KHz IB 1400 KHz BK	Level 300 - 400 uV/m Mod. 400 Hz 30%	1404 KHz IB 1400 KHz BK	CA01	Output level (L or R) Maximum at TAPE-OUT
3	Repeat step 1 and 2 until level is at maximum reading.					

7. AM Tracking Adjustment (LW)

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	171 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	171 KHz	LA03	Output level (L or R) Maximum at TAPE-OUT
2		270 KHz	Level 300 - 400 uV/m Mod. 400 Hz 30%	270 KHz	CA08	Output level (L or R) Maximum at TAPE-OUT
3	Repeat step 1 and 2 until level is at maximum reading.					

8. AM auto stop Adjustment

Step	Input Signal Source Connection	Signal Frequency	Source Signal Output Level and Modulation	Reception Frequency	Adjustment Point	Adjustment Value
1	Signal generator output to transmission *loop antenna. (*:Standard required loop)	999 KHz IB 1000 KHz BK	500 uV/m (54 dB/m)	999 KHz IB 1000 KHz BK	RA11	"TUNED" indicate on FLD
2			1000 uV/m (60 dB/m)	AUTO SCAN	Only Confirm	"TUNED" indicate on FLD

REMARK: This adjustment is related to the FM muting Level Adjustment. The FM muting Level re-adjustment is necessary after this adjustment.

9. On Screen Display VCO Adjustment

Step	Input Signal Source and Connection	Measuring position	Measuring equipment	Input selector	Adjustment Point	Adjustment Value
1	Color bar or other standard video signal. Video signal generator output to LD video input.	IC QX60 26pin and GND.	DC voltmeter (Impedance > 10K ohm/V)	LD	CX67	2.5V +0.1V

REMARK: Connect the TV monitor to the monitor output terminal of the product.

10. Main amp idling current adjustment

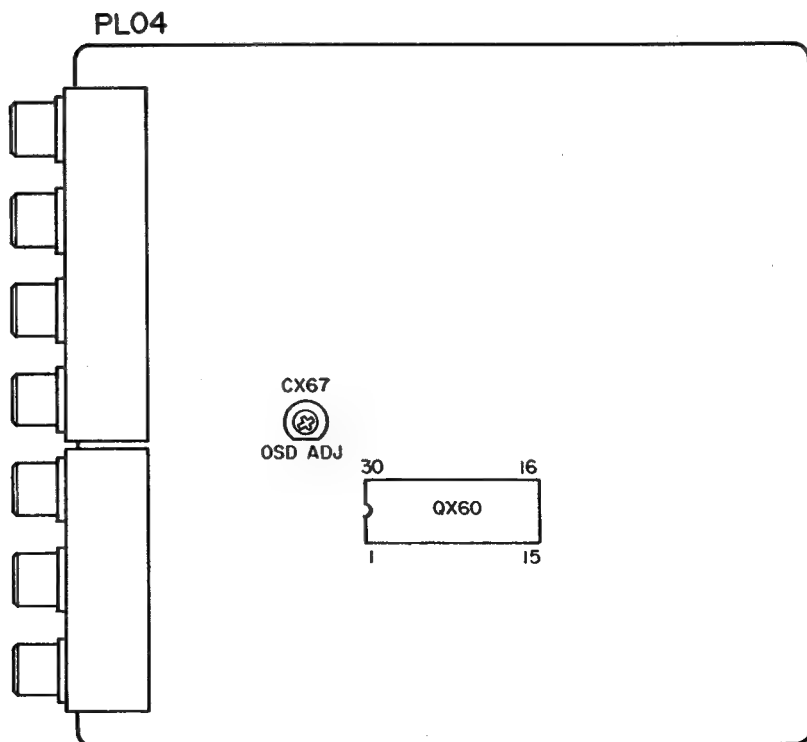
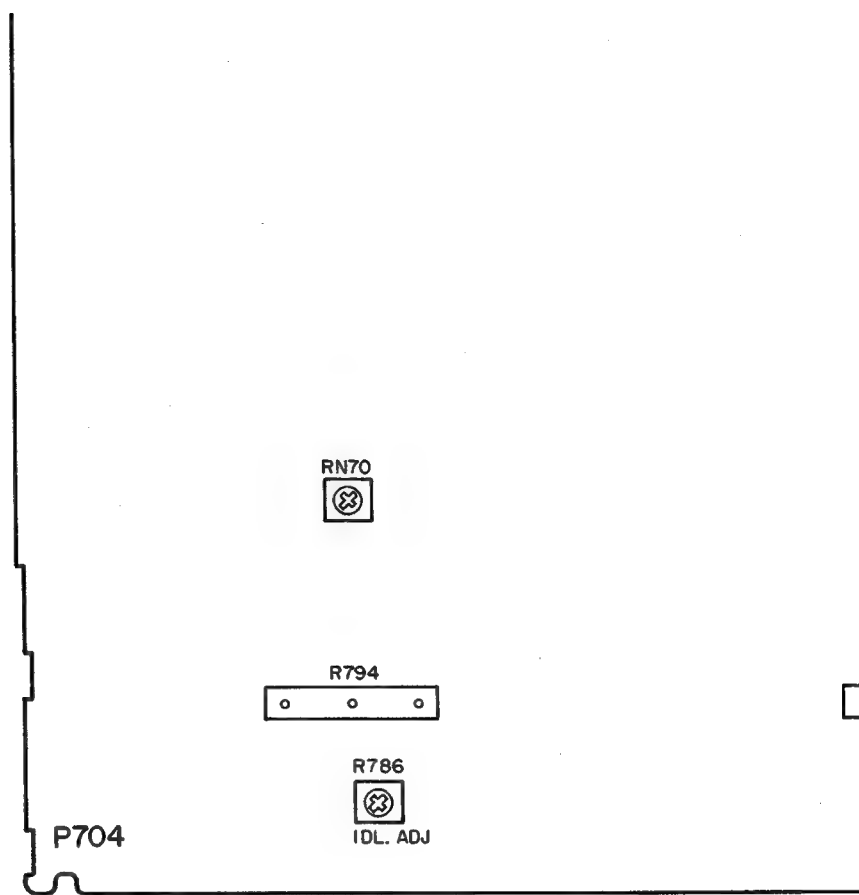
- 1) With the power OFF, set semi – fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) on the PC board (PV04) to the center position.
- 2) Connect a digital voltmeter, set for the DC range, on the emitter resistor [R759 (Lch), R760 (Rch), R794 (Center ch)] on the PC board (PV04).
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Turn the power ON and adjust semi – fixed resistor R743 (Lch), R744 (Rch), R786 (Center ch) while observing the digital multimeter indication.
The target value is 7.2 mV (20 mA).

All values are with no load on speaker terminals, volume set to minimum and no input with the unit switched to the CD position. Always allow the amplifier to stabilize for 10 minutes or longer prior to adjusting idle current.

11. Main amp DC offset adjustment

- 1) With the power OFF, connect a digital voltmeter, set for the DC range, to the speaker terminal.
- 2) After the above, adjust the DC offset as follows:
Turn the power ON and adjust RN63 (Lch), RN64 (Rch), RN70 (Center ch) so that the output is ± 20 mV.

ALIGNMENT AND TEST POINTS



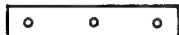
RN64



RN63



R760



R759



R744



IDL. ADJ

R743



IDL. ADJ

PI04

R906



R211



R212



RA11



L201

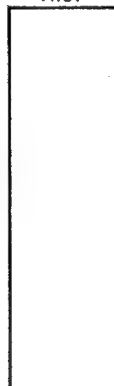


LA06

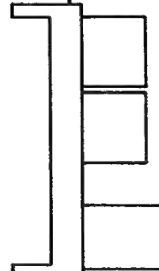
R218



A101



J101



CA08



LA03



CA01



LA01

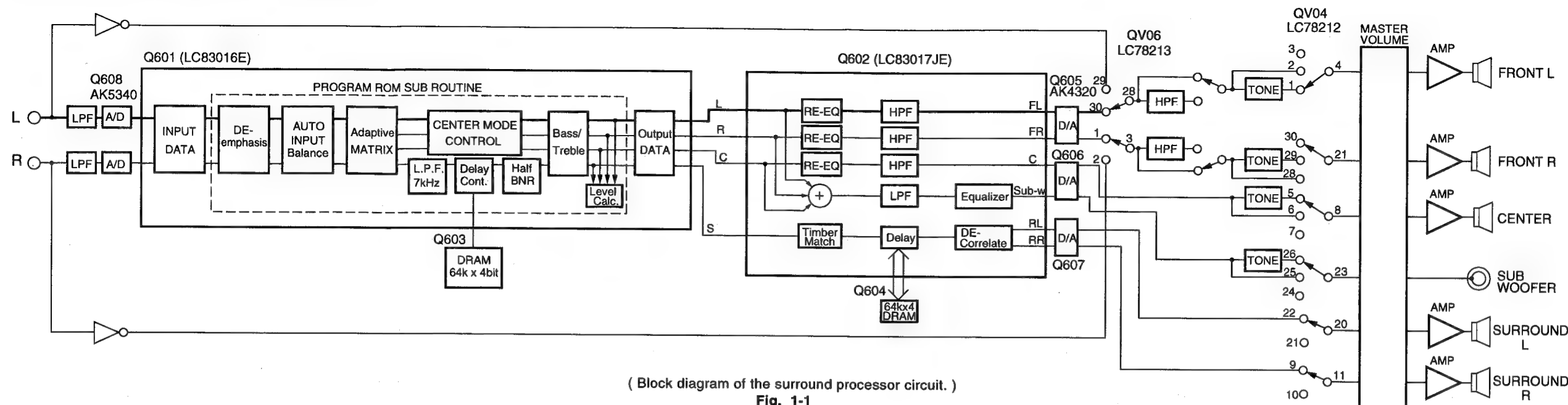


CIRCUIT DESCRIPTION

1. SURROUND CIRCUIT

This model incorporates a surround processor circuit that provides 6 types of the surround sound. Fig. 1-1 is a block diagram of the surround processor circuit.

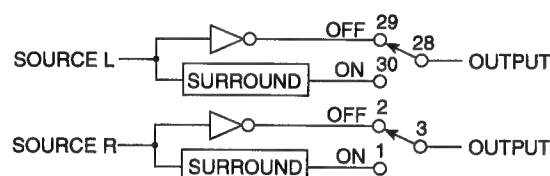
The microprocessor transfers the data to the parameter control (Serial data, Serial clock, Request Ready) to operate the circuits in each mode.



(1) Stereo

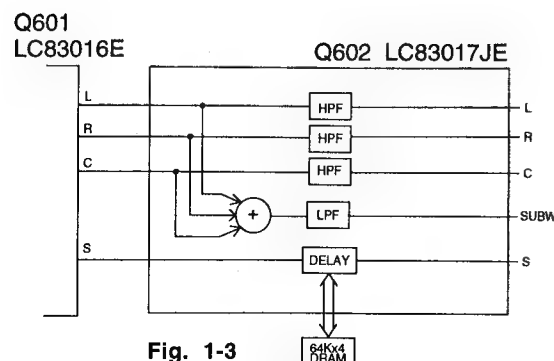
Set to this mode to listen to ordinary stereo sound. The rear L/R and center outputs will be muted.

Q706 LC78213



(2) THX Cinema

The IC Q602 (LC83017E) is a THX Cinema decoder IC. IC Q602 (LC83017E) divides the 4 channel signals (Left, Right, Center and Surround) sourcing from IC Q601 (LC83016E) into 6 channel signals (Left, Right, Center, Surround Left, Surround Right and Sub Woofer).



(3) Dolby pro logic

Q601 (LC8316E) is a Dolby pro logic decoder IC. When an audio signal recorded using the Dolby pro logic system is sent to this IC, the left, right, center and surround components are separated. The surround signal component is delayed by the digital delay circuit by 15-30 mS and is sent to the modified B-type decoder Q601 where noise reduction processing is performed.

(4) Movie, 3CH Logic Hall, Matrix

The Movie mode provides the feeling of presence you get from a 35-mm movie in a movie theater. 3CH Logic mode is used to improve the sound field center by applying directivity enhancement provided by the Dolby Pro Logic Surround decoder. Hall mode provides a sound-field effect of medium-sized circular hall with rich reverberations. Matrix mode is effective for playing sports broadcasts or outdoor live concerts. It provides a surround mode with a wide surround effect. All the connections of the circuits are the same in these modes. Q601, controlled by the microprocessor, processes the audio signals to produce various sound effects and creates surround components to use them as signals to drive the surround channel.

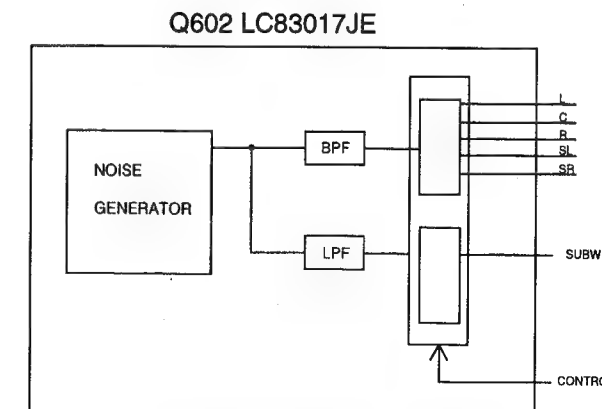
2. CENTER MODE

With Dolby pro logic, three center modes depend on the use of a center speaker as follows :

NORMAL	: Bass frequencies are sent only to the Left and Right Front channels. Select this mode when the Center Speaker is smaller than the Left and Right speakers.
WIDE	: Bass frequencies are sent to the Left, Center and Right speakers. Select this mode when the Center speaker is approximately the same size as the Left and Right speakers.
PHANTOM	: Center channel information is sent to the Left and Right speakers. Select this mode when you do not have a center channel speaker.

3. TEST TONE GENERATOR

The test tone generator generates a test tone (noise) to check the balance of sound output from each speaker in the THX CINEMA MODE, (This circuit is produced under license of Lucasfilm Ltd.) and the Dolby pro logic mode. (This circuit is produced under license of the Dolby Laboratories Licensing Corp.)

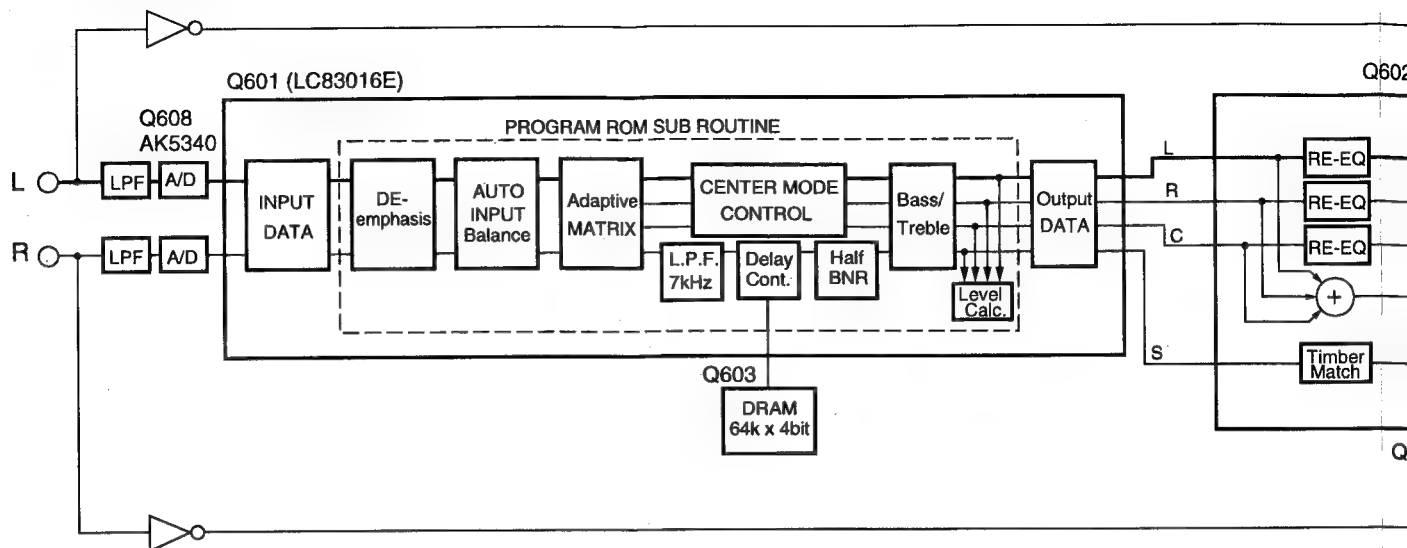


CIRCUIT DESCRIPTION

1. SURROUND CIRCUIT

This model incorporates a surround processor circuit that provides 6 types of the surround sound. Fig. 1-1 is a block diagram of the surround processor circuit.

The microprocessor transfers the data to the parameter control (Serial data, Serial clock, Request Ready) to operate the circuits in each mode.



(Block diagram of the surround processor)

Fig. 1-1

(1) Stereo

Set to this mode to listen to ordinary stereo sound.
The rear L/R and center outputs will be muted.

Q706 LC78213

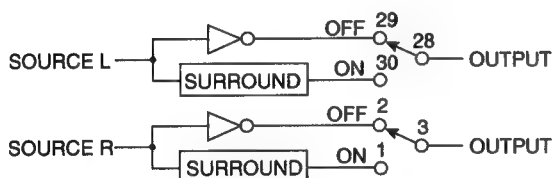


Fig. 1-2

(2) THX Cinema

The IC Q602 (LC83017E) is a THX Cinema decoder IC. IC Q602 (LC83017E) divides the 4 channel signals (Left, Right, Center and Surround) sourcing from IC Q601 (LC83016E) into 5 channel signals (Left, Right, Center, Surround Left, Surround Right and Sub Woofer).

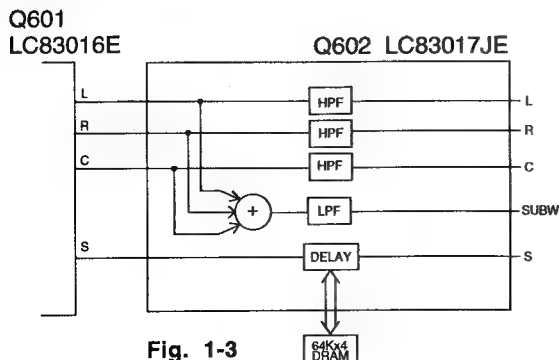


Fig. 1-3

(3) Dolby pro logic

Q601 (LC8316E) is a Dolby pro logic decoder IC. When an audio signal recorded using the Dolby pro logic system is sent to this IC, the left, right, center and surround components are separated. The surround signal component is delayed by the digital delay circuit by 15-30 mS and is sent to the modified B-type decoder Q601 where noise reduction processing is performed.

(4) Movie, 3CH Logic Hall, Matrix

The Movie mode provides the feeling of presence you get from a 35-mm movie in a movie theater. 3CH Logic mode is used to improve the sound field center by applying directivity enhancement provided by the Dolby Pro Logic Surround decoder. Hall mode provides a sound-field effect of medium-sized circular hall with rich reverberations. Matrix mode is effective for playing sports broadcasts or outdoor live concerts. It provides a surround mode with a wide surround effect. All the connections of the circuits are the same in these modes. Q601, controlled by the microprocessor, processes the audio signals to produce various sound effects and creates surround components to use them as signals to drive the surround channel.

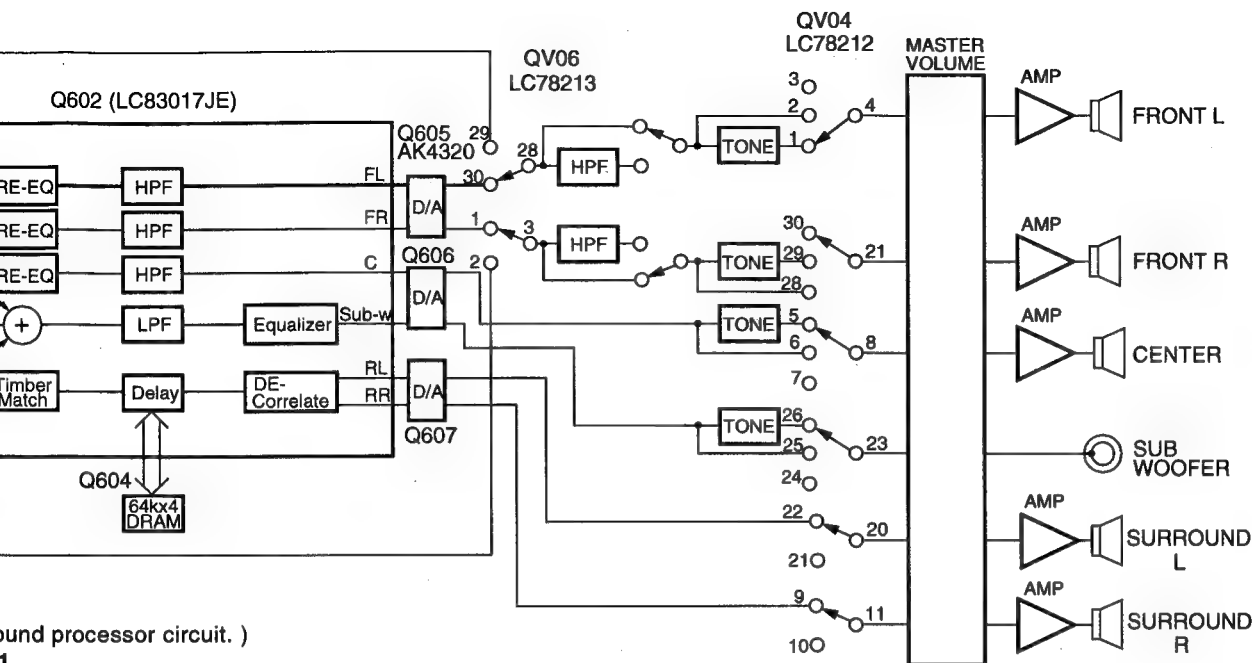
2. CEN

With D
use of a

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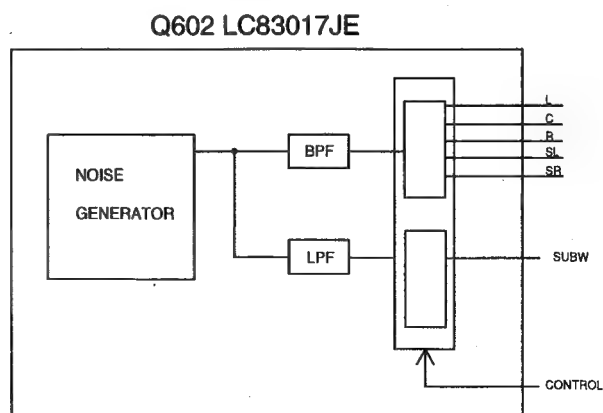
2. CENTER MODE

With Dolby pro logic, three center modes depend on the use of a center speaker as follows :

NORMAL	: Bass frequencies are sent only to the Left and Right Front channels. Select this mode when the Center Speaker is smaller than the Left and Right speakers.
WIDE	: Bass frequencies are sent to the Left, Center and Right speakers. Select this mode when the Center speaker is approximately the same size as the Left and Right speakers.
PHANTOM	: Center channel information is sent to the Left and Right speakers. Select this mode when you do not have a center channel speaker.

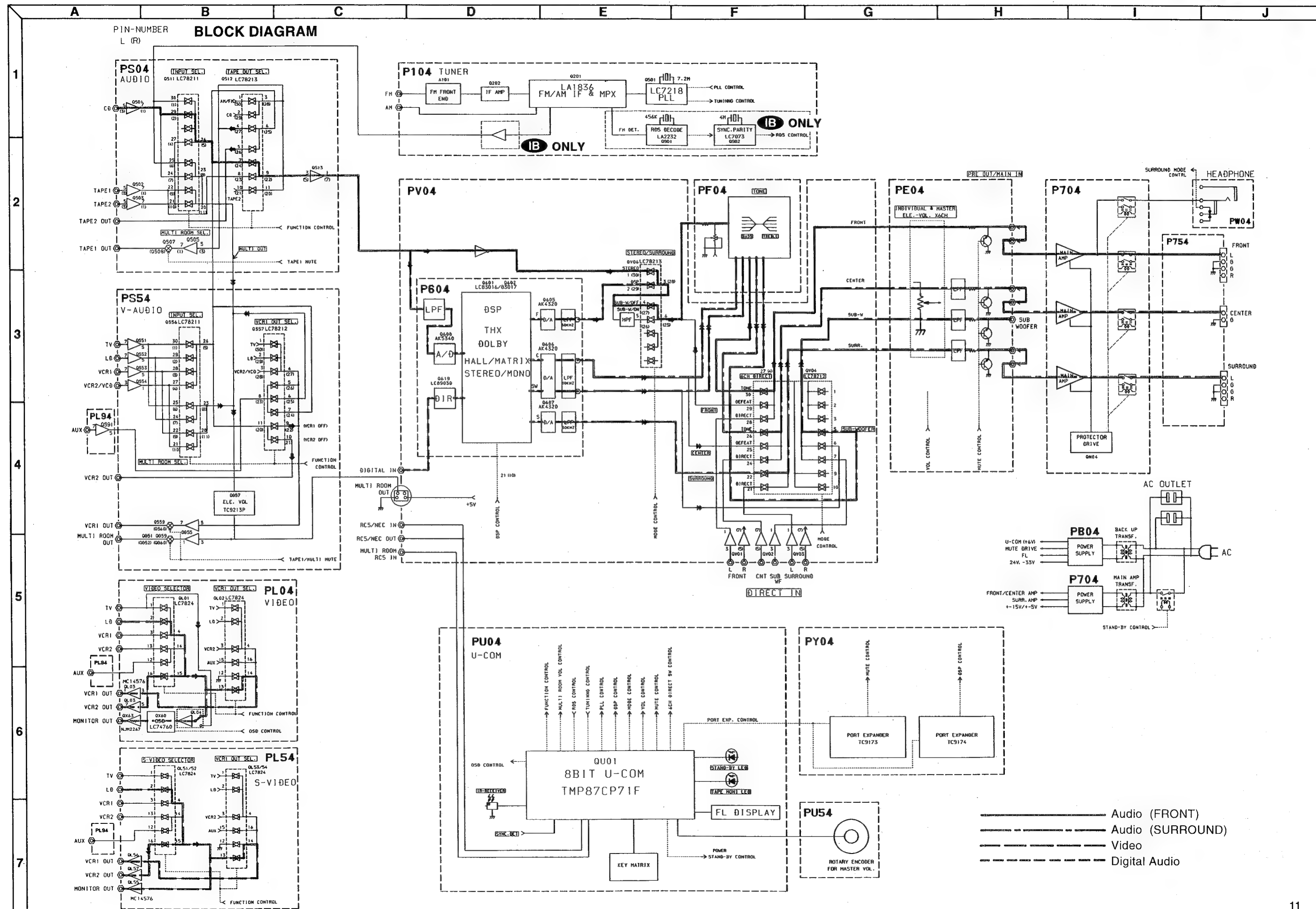
3. TEST TONE GENERATOR

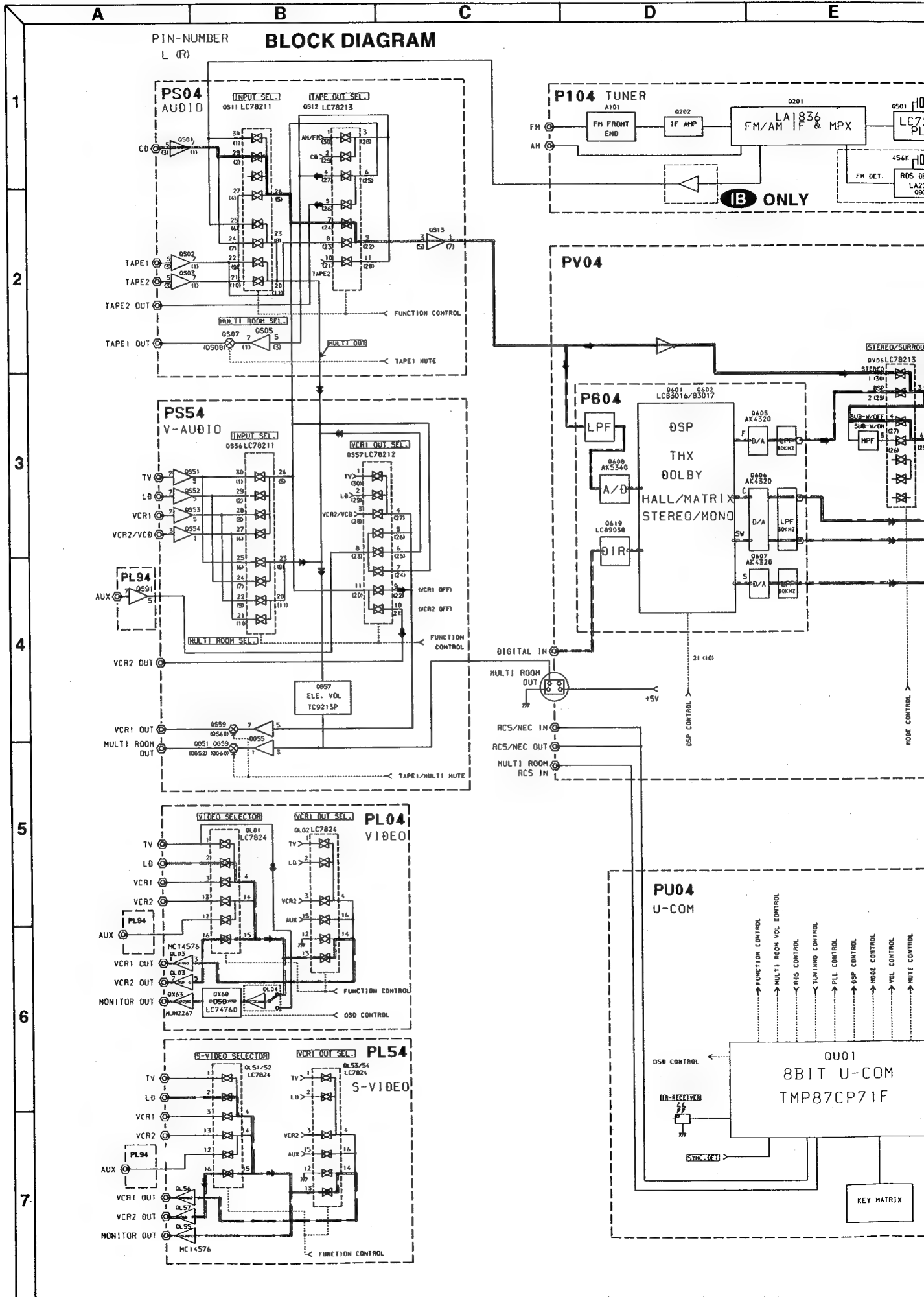
The test tone generator generates a test tone (noise) to check the balance of sound output from each speaker in the THX CINEMA MODE, (This circuit is produced under license of Lucasfilm Ltd.) and the Dolby pro logic mode. (This circuit is produced under license of the Dolby Laboratories Licensing Corp.)



(Flow of noise signals within the system.)

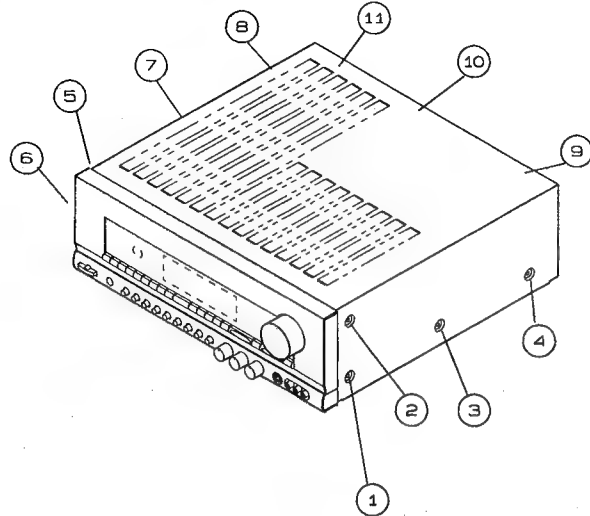
Fig. 3



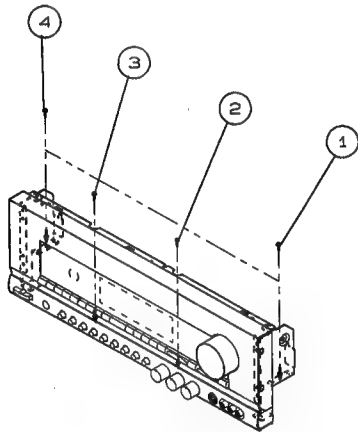


DISASSEMBLY PROCEDURES

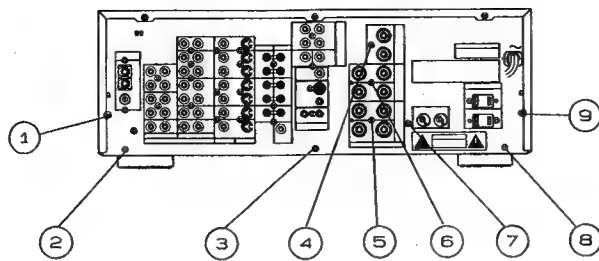
1. Removing the top Cover
Remove the screws ① ~ ⑪



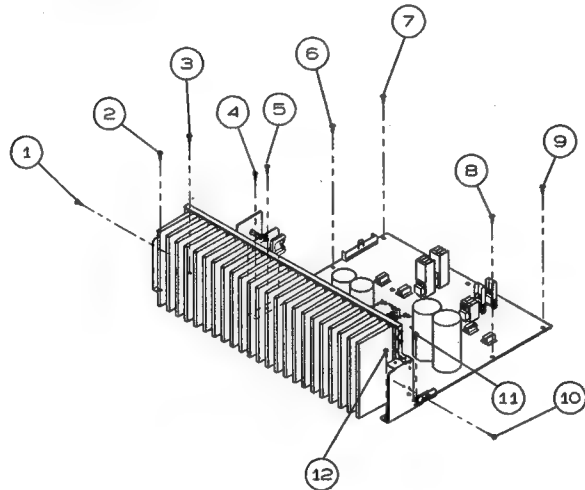
2. Removing the front panel
Remove the screws ① ~ ④



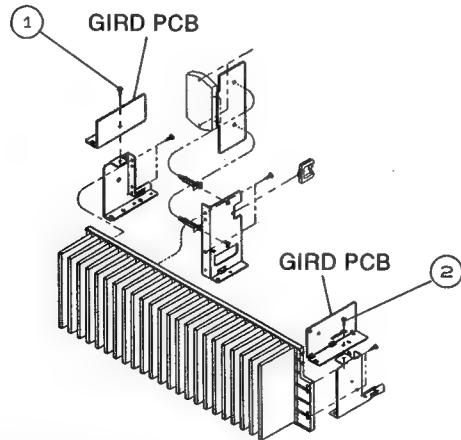
3. Removing the rear panel
Remove the screws ① ~ ⑨



4. Removing the main PCB Block
Remove the screws ① ~ ⑫



5. Removing the shield plate
Remove the screws ① ②



MAIN PCB BLOCK (P704)

1. Remove all of the screws on REAR PANEL. (900G)
2. Remove the REAR PANEL.
3. Remove the SPEAKER TERMINAL PCB. (P754)
4. Remove the screw x4 for MAIN PCB mounting.
5. Remove the screw x2 for both sides GIRD PCB of main heatsink.
6. Remove the both sides GIRD PCB.
7. Remove the screw x4 for MAIN PCB BLOCK mounting.
8. Remove the MAIN PCB BLOCK.

POWER SUPPLY PCB (PB04)

1. Remove the screw x2 for TRANSF mounting.
2. Remove the screw x2 for POWER SUPPLY PCB mounting.
3. Remove the POWER SUPPLY PCB.

MAIN VOL PCB (PU54)

1. Remove the MAIN VOL KNOB. (035B)
2. Remove the MAIN VOL NUT.
3. Pull out the MAIN VOL PCB.

TONE VOL PCB (PF04)

1. Remove the three TONE VOL KNOBS. (036B)
2. Remove the three TONE VOL NUTS.
3. Pull out the TONE VOL PCB.

FRONT FUNCTION PCB (PU04)

1. Remove the screw x4 for FRONT PANEL ASSY mounting.
2. Lay down the FRONT PANEL ASSY.
3. Remove the screw x16 for FRONT FUNCTION PCB.
4. Remove the FRONT FUNCTION PCB.

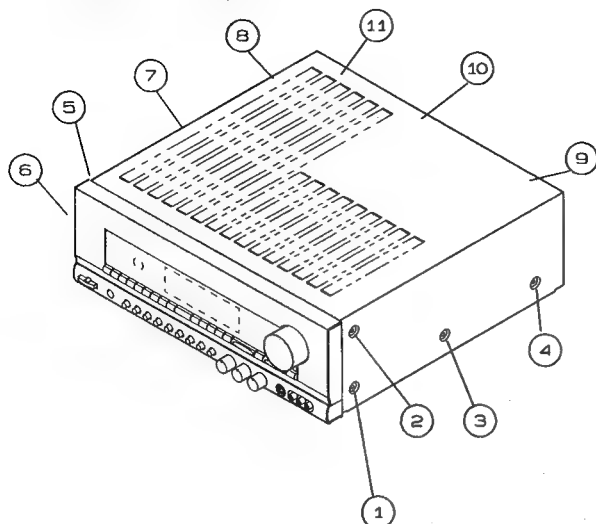
GENERAL UNIT PARTS LIST

Ref. No.	Part. No.	Description	Q'TY	Ref. No.	Part. No.	Description	Q'TY
001B	260J248020	FRONT PANEL IB	1	▲ L001	TS60513020	POWER TRANSF. 230V IB	1
001B	260J248010	FRONT PANEL BK	1	▲ L001	TS60513010	POWER TRANSF. 120V BK	1
005B	260J105010	CHASSIS, FRONT	1	L002	FC50380010	FERRITE CORE IB	1
008B	260J158010	WINDOW	1	Y001	YQ01000080	SHORTING PLUG	1
010B	260J270010	BUTTON, FUNCTION	1	Y002	YQ01000080	SHORTING PLUG	1
013B	260J270510	BUTTON KIT, POWER	1	Y003	YQ01000080	SHORTING PLUG	1
014B	260J270040	BUTTON, POWER	1	Y004	YQ01000080	SHORTING PLUG	1
015B	260J355020	LENS, POWER	1	Y005	YQ01000080	SHORTING PLUG	1
017B	260J270020	BUTTON, MODE IB	1	▲ W001	YC01800790	A.C POWER CORD IB	1
017B	260J270120	BUTTON, MODE BK	1	▲ W001	YC01800780	A.C POWER CORD BK	1
019B	183J271020	HOLDER, FL	1				
020B	056J122010	STICKER, FL	1	5110	51100306M0	B. H. M SCREW 5110 ø3x6 (M)	5
021B	4220005040	CLAMPER	1	5110	51100308A0	B. H. M SCREW 5110 ø3x8 (A)	4
023B	183J010010	SCREW, PHONE PCB	1	5126	51260308M0	B.T.SCREW(W/W) 5126 ø3x8 (M)	8
025B	264J160040	BRACKET, LEFT	1	5126	51260308U0	B.T.SCREW(W/W) 5126 ø3x8 (U)	11
027B	264J160050	BRACKET, RIGHT	1	5128	51280308M0	B. H. TAP. SCREW 5128 ø3x8 (M)	99
035B	063J154180	KNOB, MAIN VOL	1	5128	51280308U0	B. H. TAP. SCREW 5128 ø3x8 (U)	3
036B	042J154020	KNOB, TONE VOL	3	5128	51280325B0	B. H. TAP. SCREW 5128 ø3x25 (B)	2
001D	264J257110	LID, TOP COVER	1	5128	51280410U0	B. H. TAP. SCREW 5128 ø4x10 (U)	1
001G	264J105500	CHASSIS ASSEMBLY, MAIN	1	5128	51480310A0	F. WASHER SCREW 5148 ø3x10(A)	9
002G	264J105010	CHASSIS, MAIN	1	5128	51480315M0	F. WASHER SCREW 5148 ø3x15(M)	2
003G	030J114010	STOPPER	1	5128	52040408M0	H. HEAD BOLT 5204 ø4x8 (M)	4
006G	227J056010	BUFFER	4				
007G	183J057010	LEG, FRONT	2				
008G	183J057110	LEG, REAR	2				
010G	264J160010	BRACKET, TRANSF.	1				
013G	260J271010	HOLDER, SUB TRANSF.	1				
016G	2218271020	HOLDER, PCB	7				
017G	054J101020	SUPPORT, MAIN PCB	3				
020G	137J861050	LABEL, FUSE BK	1				
022G	093J861010	LABEL, FUSE BK	1				
030G	136J101020	SUPPORT	1				
900G	260J250020	REAR PANEL IB	1				
900G	260J250010	REAR PANEL BK	1				
910G	450H259010	BUSHING, AC CODE	1				
915G	260J861010	LABEL IB	1				
920G	95109111D0	LABEL BK	1				
001L	264J267010	HEATSINK, MAIN	1				
005L	264J160020	BRACKET, HEAT SINK (L)	1				
009L	264J160030	BRACKET, HEAT SINK (R)	1				
013L	261J104010	RETAINER, MAIN PCB	2				
015L	264J160060	BRACKET, HEATSINK CENTER	1				
017L	090J101010	SUPPORT	2				
020L	287S005010	CLAMPER	1				
001K	009D267010	HEATSINK	1				
002K	009D267010	HEATSINK	1				
003K	001J267030	HEATSINK	1				
004K	001J267030	HEATSINK	1				
005K	309V267010	HEATSINK	1				
007K	309V267010	HEATSINK	1				
011K	260J123010	CONTACTOR	1				
012K	152J118030	SPACER	1				
014K	306V259030	BUSHING IB	1				
061K	415T101010	SUPPORT	1				

DISASSEMBLY PROCEDURES

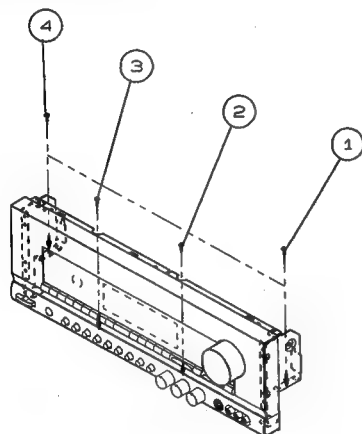
1. Removing the top Cover

Remove the screws ① ~ ⑪



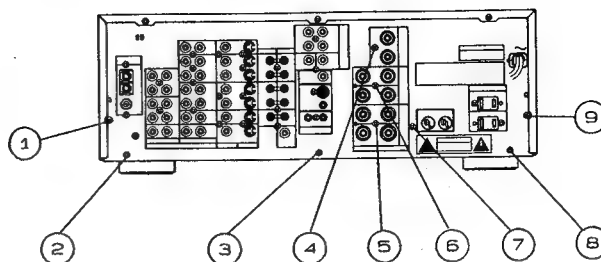
2. Removing the front panel

Remove the screws ① ~ ④



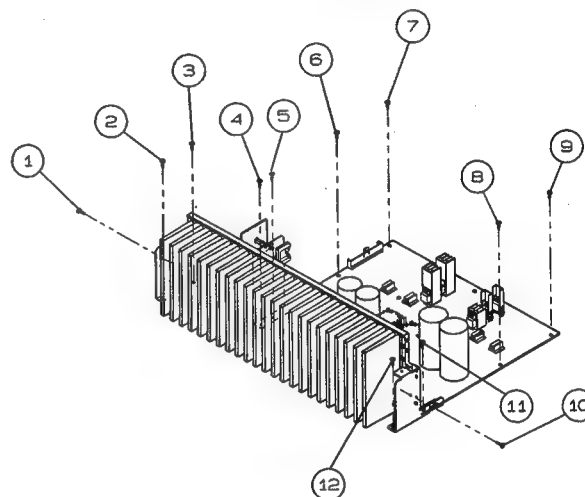
3. Removing the rear panel

Remove the screws ① ~ ⑨



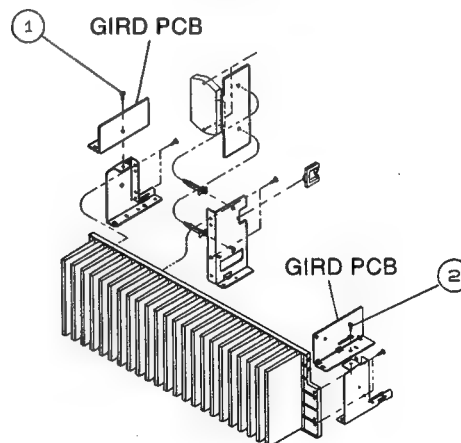
4. Removing the main PCB Block

Remove the screws ① ~ ⑫



5. Removing the shield plate

Remove the screws ① ②



MAIN PCB BLOCK (P704)

1. Remove all of the screws on REAR PANEL. (900G)
2. Remove the REAR PANEL.
3. Remove the SPEAKER TERMINAL PCB. (P754)
4. Remove the screw x4 for MAIN PCB mounting.
5. Remove the screw x2 for both sides GIRD PCB of main heatsink.
6. Remove the both sides GIRD PCB.
7. Remove the screw x4 for MAIN PCB BLOCK mounting.
8. Remove the MAIN PCB BLOCK.

POWER SUPPLY PCB (PB04)

1. Remove the screw x2 for TRANSF mounting.
2. Remove the screw x2 for POWER SUPPLY PCB mounting.
3. Remove the POWER SUPPLY PCB.

MAIN VOL PCB (PU54)

1. Remove the MAIN VOL KNOB. (035B)
2. Remove the MAIN VOL NUT.
3. Pull out the MAIN VOL PCB.

TONE VOL PCB (PF04)

1. Remove the three TONE VOL KNOBS. (036B)
2. Remove the three TONE VOL NUTS.
3. Pull out the TONE VOL PCB.

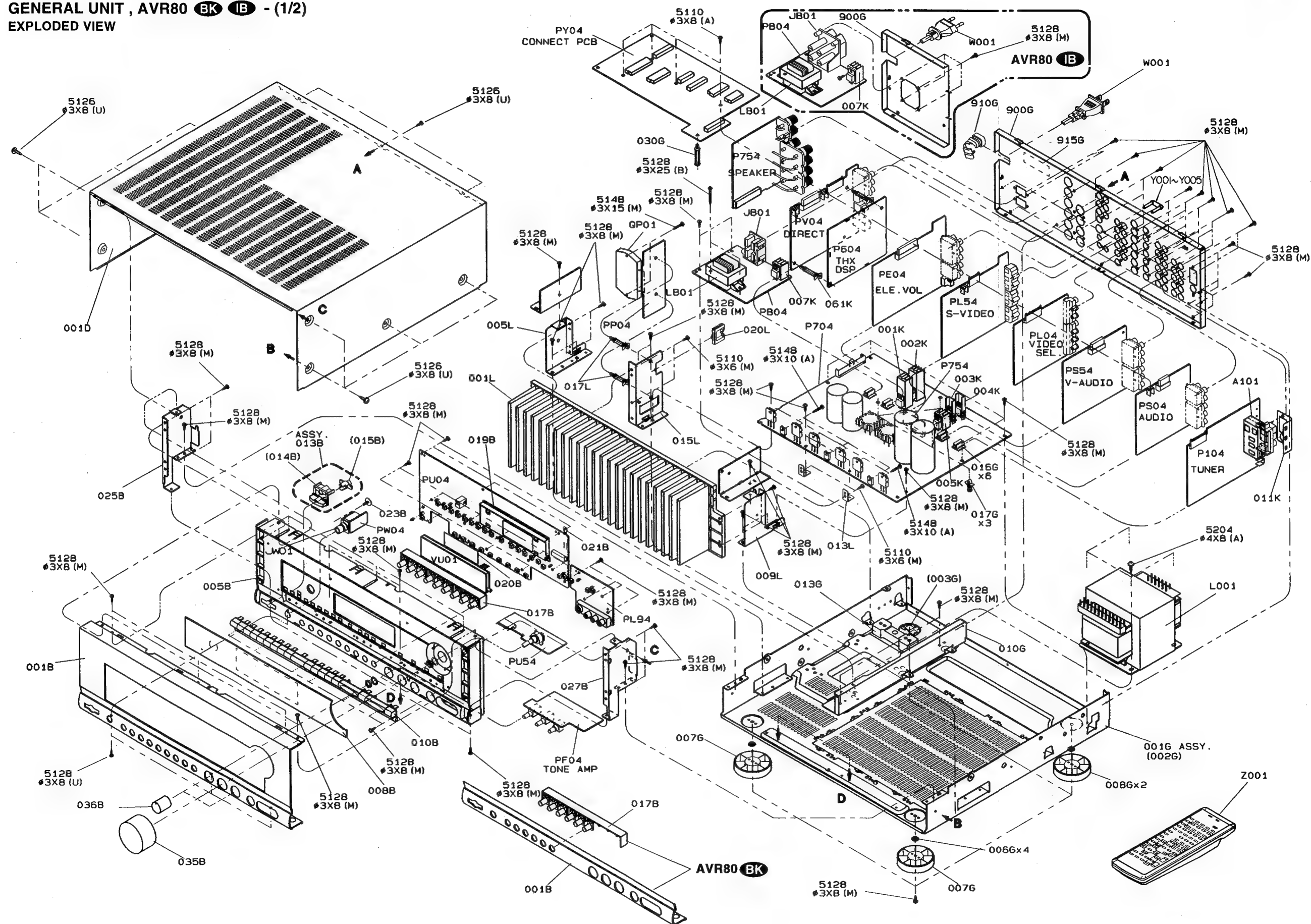
FRONT FUNCTION PCB (PU04)

1. Remove the screw x4 for FRONT PANEL ASSY mounting.
2. Lay down the FRONT PANEL ASSY.
3. Remove the screw x16 for FRONT FUNCTION PCB.
4. Remove the FRONT FUNCTION PCB.

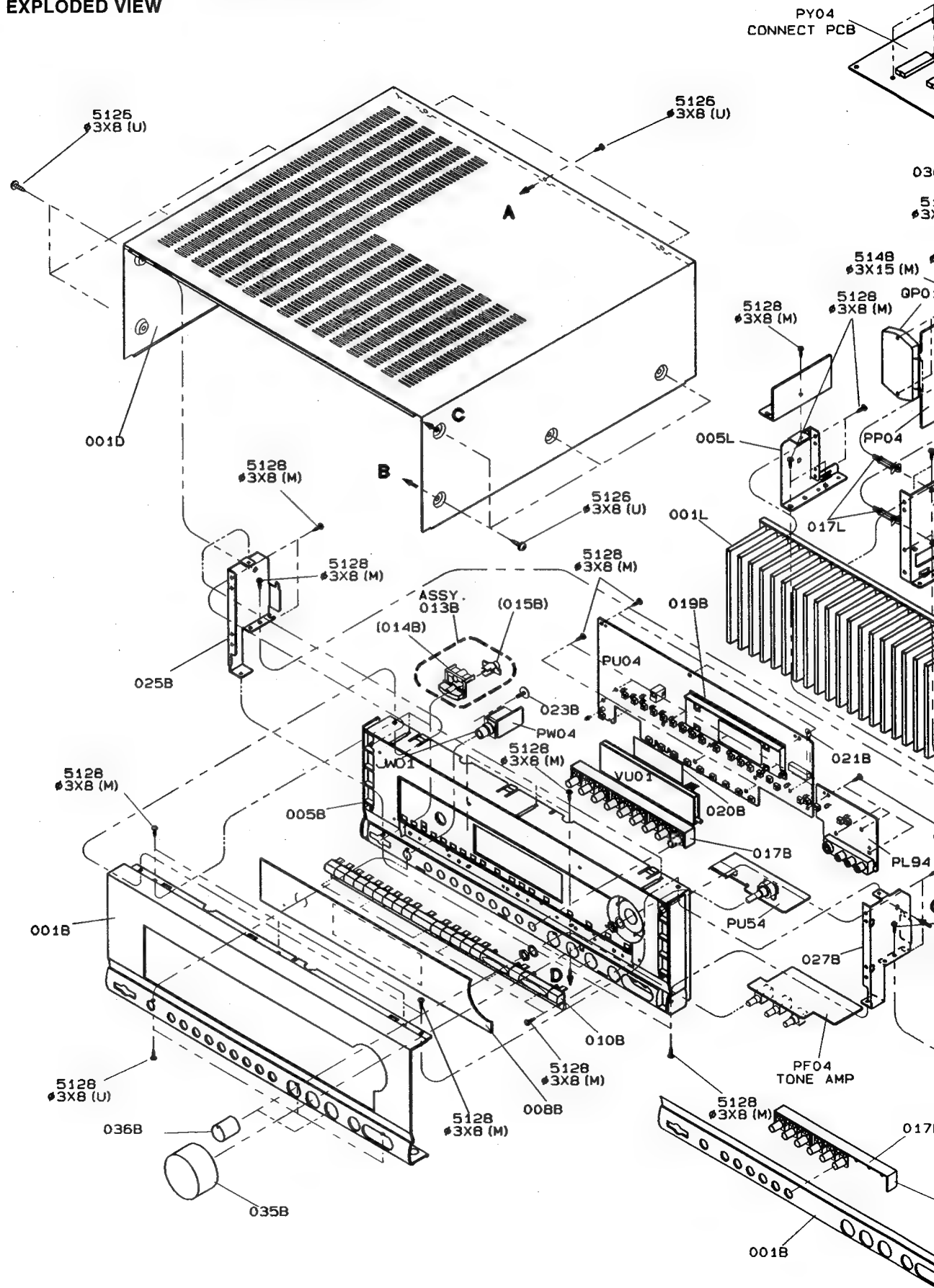
GENERAL UNIT PARTS LIST

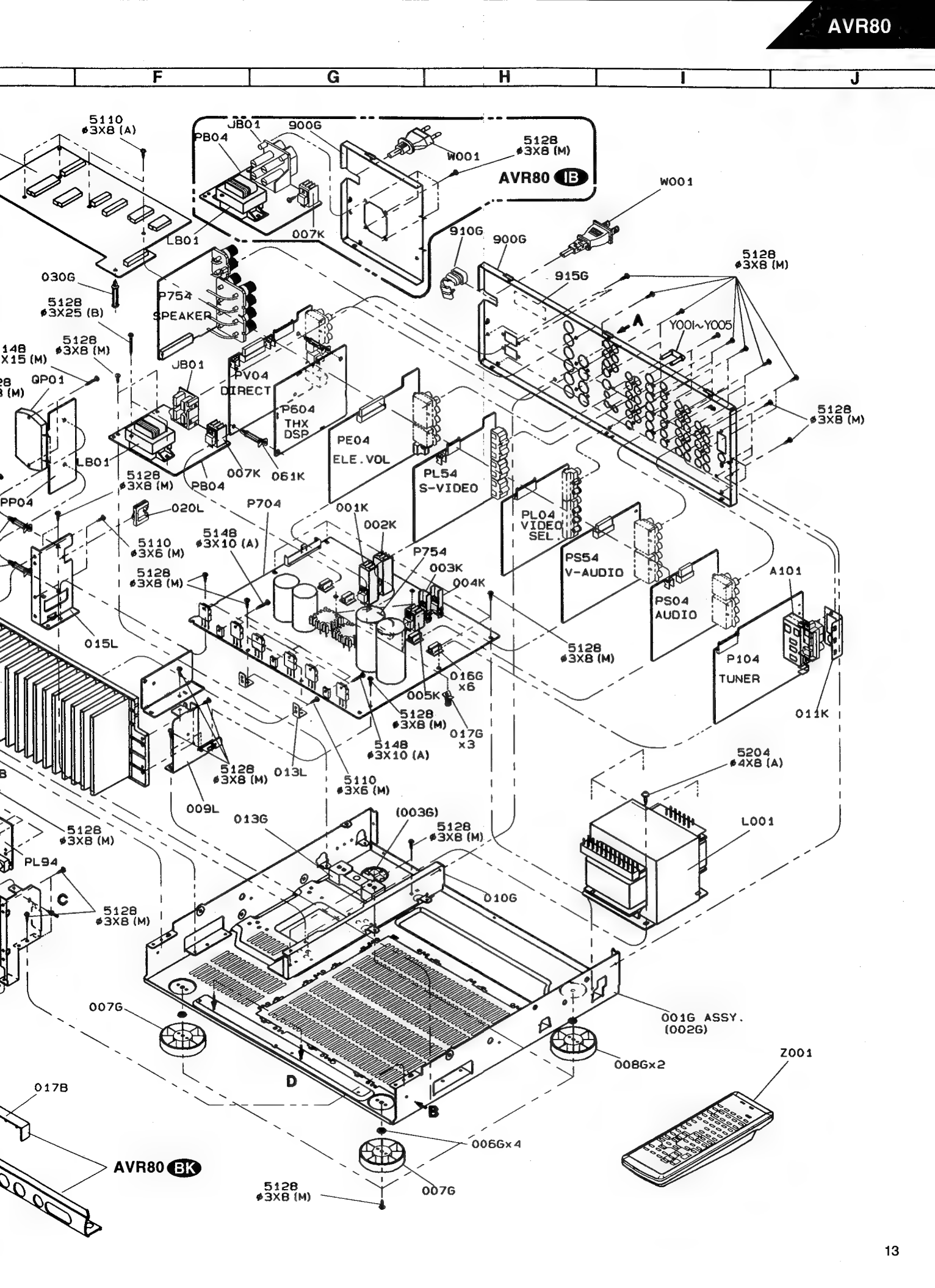
Ref. No.	Part. No.	Description	Q'TY	Ref. No.	Part. No.	Description	Q'TY
001B	260J248020	FRONT PANEL IB	1	▲ L001	TS60513020	POWER TRANSF. 230V IB	1
001B	260J248010	FRONT PANEL BK	1	▲ L001	TS60513010	POWER TRANSF. 120V BK	1
005B	260J105010	CHASSIS, FRONT	1	L002	FC50380010	FERRITE CORE IB	1
008B	260J158010	WINDOW	1	Y001	YQ01000080	SHORTING PLUG	1
010B	260J270010	BUTTON, FUNCTION	1	Y002	YQ01000080	SHORTING PLUG	1
013B	260J270510	BUTTON KIT, POWER	1	Y003	YQ01000080	SHORTING PLUG	1
014B	260J270040	BUTTON, POWER	1	Y004	YQ01000080	SHORTING PLUG	1
015B	260J355020	LENS, POWER	1	Y005	YQ01000080	SHORTING PLUG	1
017B	260J270020	BUTTON, MODE IB	1	▲ W001	YC01800790	A.C POWER CORD IB	1
017B	260J270120	BUTTON, MODE BK	1	▲ W001	YC01800780	A.C POWER CORD BK	1
019B	183J271020	HOLDER, FL	1				
020B	056J122010	STICKER, FL	1	5110	51100306M0	B. H. M SCREW 5110 ø3x6 (M)	5
021B	4220005040	CLAMPER	1	5110	51100308A0	B. H. M SCREW 5110 ø3x8 (A)	4
023B	183J010010	SCREW, PHONE PCB	1	5126	51260308M0	B.T.SCREW(W/W) 5126 ø3x8 (M)	8
025B	264J160040	BRACKET, LEFT	1	5126	51260308U0	B.T.SCREW(W/W) 5126 ø3x8 (U)	11
027B	264J160050	BRACKET, RIGHT	1	5128	51280308M0	B. H. TAP. SCREW 5128 ø3x8 (M)	99
035B	063J154180	KNOB, MAIN VOL	1	5128	51280308U0	B. H. TAP. SCREW 5128 ø3x8 (U)	3
036B	042J154020	KNOB, TONE VOL	3	5128	51280325B0	B. H. TAP. SCREW 5128 ø3x25 (B)	2
001D	264J257110	LID, TOP COVER	1	5128	51280410U0	B. H. TAP. SCREW 5128 ø4x10 (U)	1
001G	264J105500	CHASSIS ASSEMBLY, MAIN	1	5128	51480310A0	F. WASHER SCREW 5148 ø3x10(A)	9
002G	264J105010	CHASSIS, MAIN	1	5128	51480315M0	F. WASHER SCREW 5148 ø3x15(M)	2
003G	030J114010	STOPPER	1	5128	52040408M0	H. HEAD BOLT 5204 ø4x8 (M)	4
006G	227J056010	BUFFER	4				
007G	183J057010	LEG, FRONT	2				
008G	183J057110	LEG, REAR	2				
010G	264J160010	BRACKET, TRANSF.	1				
013G	260J271010	HOLDER, SUB TRANSF.	1				
016G	2218271020	HOLDER, PCB	7				
017G	054J101020	SUPPORT, MAIN PCB	3				
020G	137J861050	LABEL, FUSE BK	1				
022G	093J861010	LABEL, FUSE BK	1				
030G	136J101020	SUPPORT	1				
900G	260J250020	REAR PANEL IB	1				
900G	260J250010	REAR PANEL BK	1				
910G	450H259010	BUSHING, AC CODE	1				
915G	260J861010	LABEL IB	1				
920G	95109111D0	LABEL BK	1				
001L	264J267010	HEATSINK, MAIN	1				
005L	264J160020	BRACKET, HEAT SINK (L)	1				
009L	264J160030	BRACKET, HEAT SINK (R)	1				
013L	261J104010	RETAINER, MAIN PCB	2				
015L	264J160060	BRACKET, HEATSINK CENTER	1				
017L	090J101010	SUPPORT	2				
020L	287S005010	CLAMPER	1				
001K	009D267010	HEATSINK	1				
002K	009D267010	HEATSINK	1				
003K	001J267030	HEATSINK	1				
004K	001J267030	HEATSINK	1				
005K	309V267010	HEATSINK	1				
007K	309V267010	HEATSINK	1				
011K	260J123010	CONTACTOR	1				
012K	152J118030	SPACER	1				
014K	306V259030	BUSHING IB	1				
061K	415T101010	SUPPORT	1				

GENERAL UNIT , AVR80 BK IB - (1/2)
EXPLODED VIEW

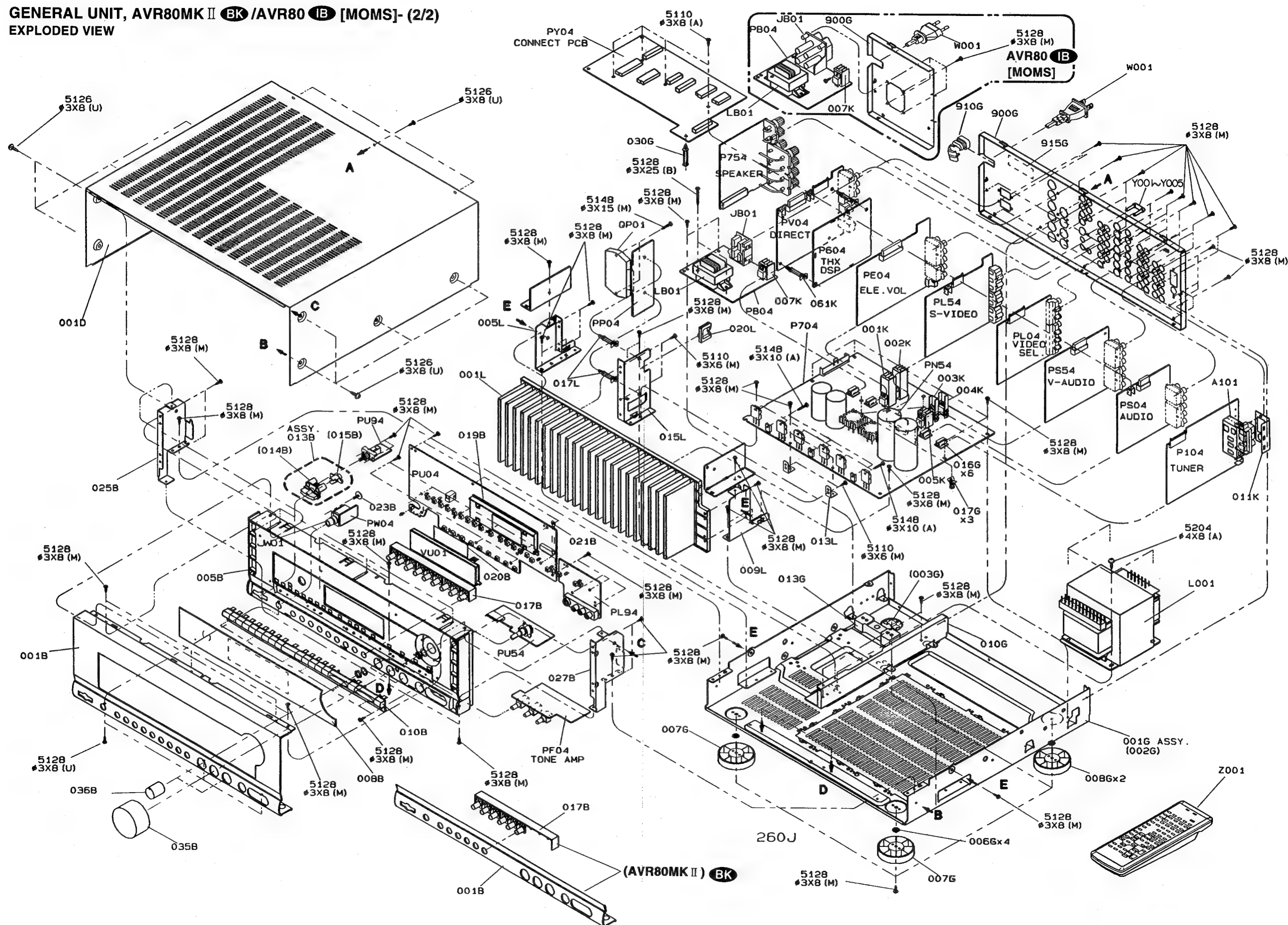


GENERAL UNIT , AVR80 BK IB - (1/2)
EXPLODED VIEW



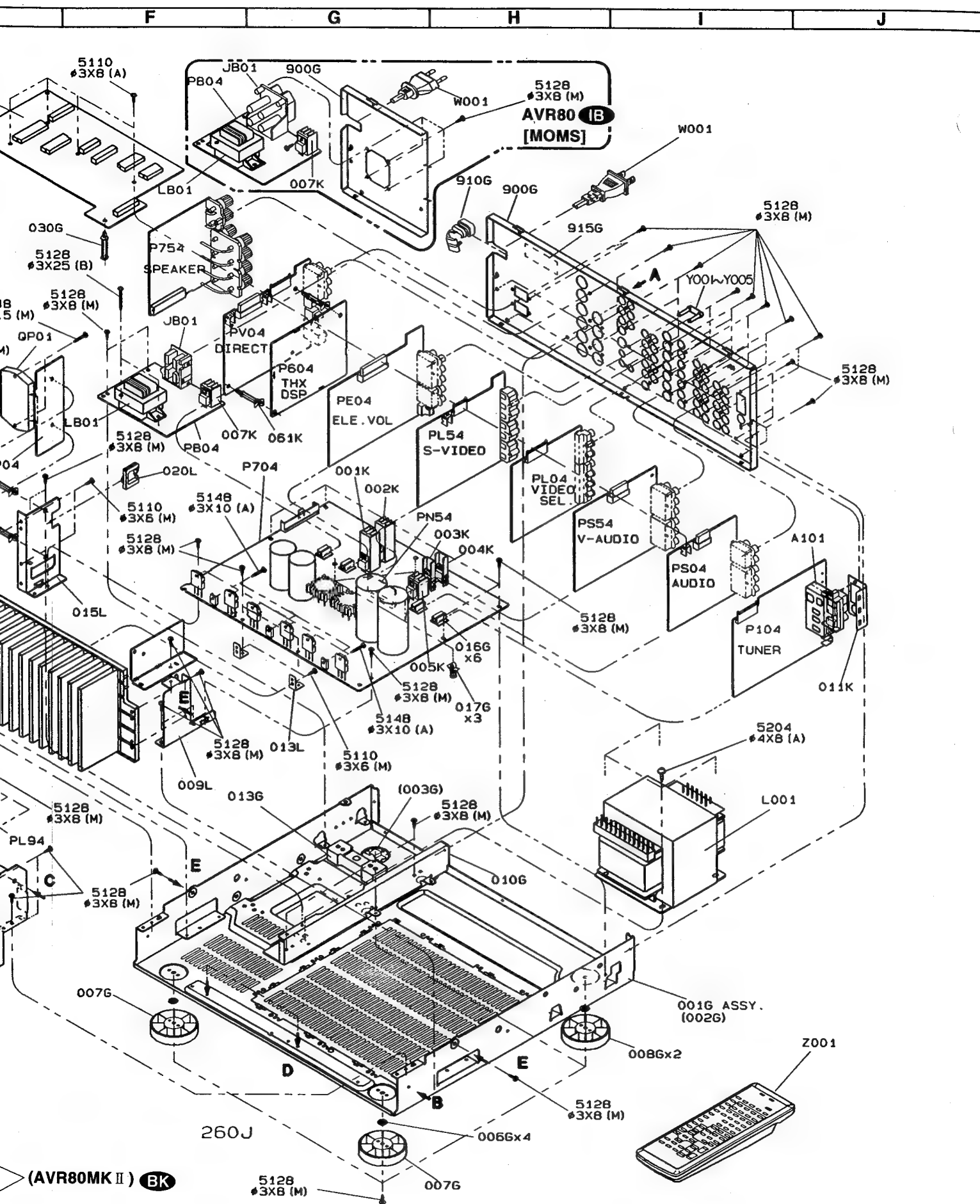


GENERAL UNIT, AVR80MK II (BK) /AVR80 (IB) [MOMS]- (2/2)
EXPLODED VIEW



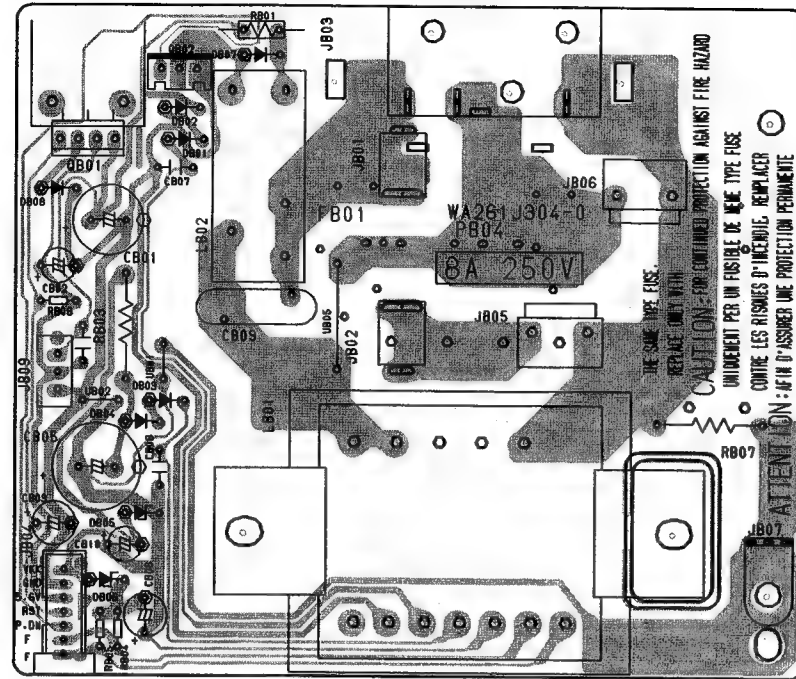
GENERAL UNIT, AVR80MK II (BK) /AVR80 (IB) [MOMS]- (2/2)
EXPLODED VIEW



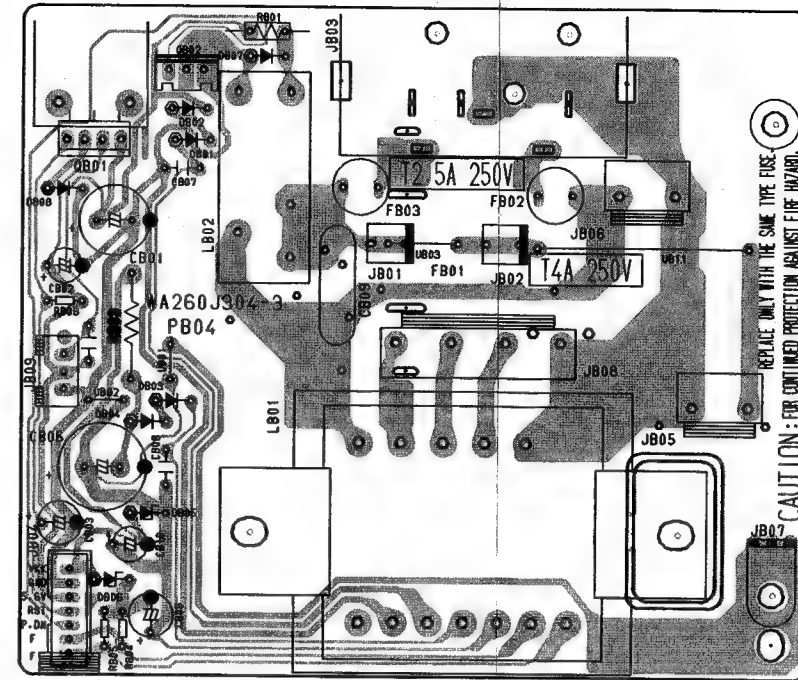


P.C. BOARDS (1)

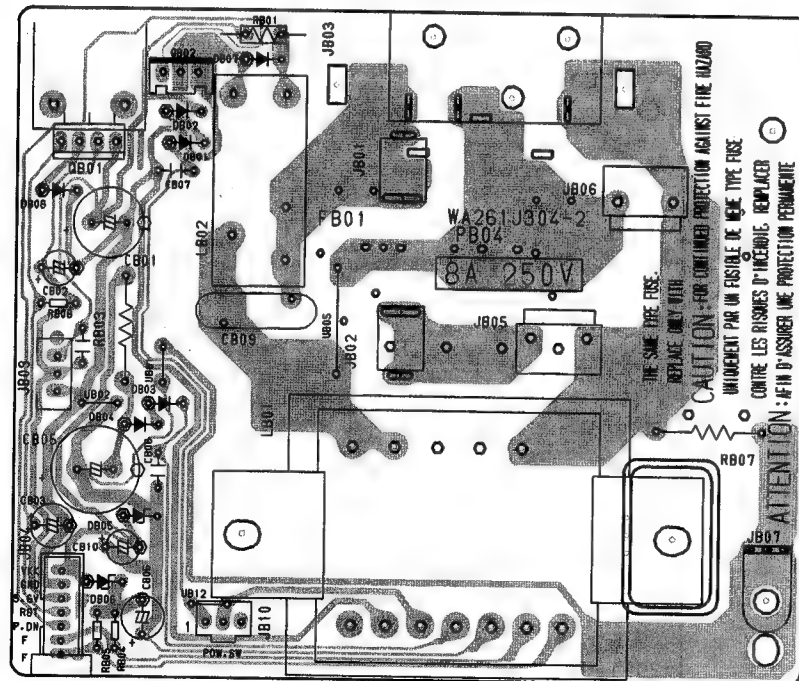
PB04-Back-up P.C. Board , AVR80 **BK** Version



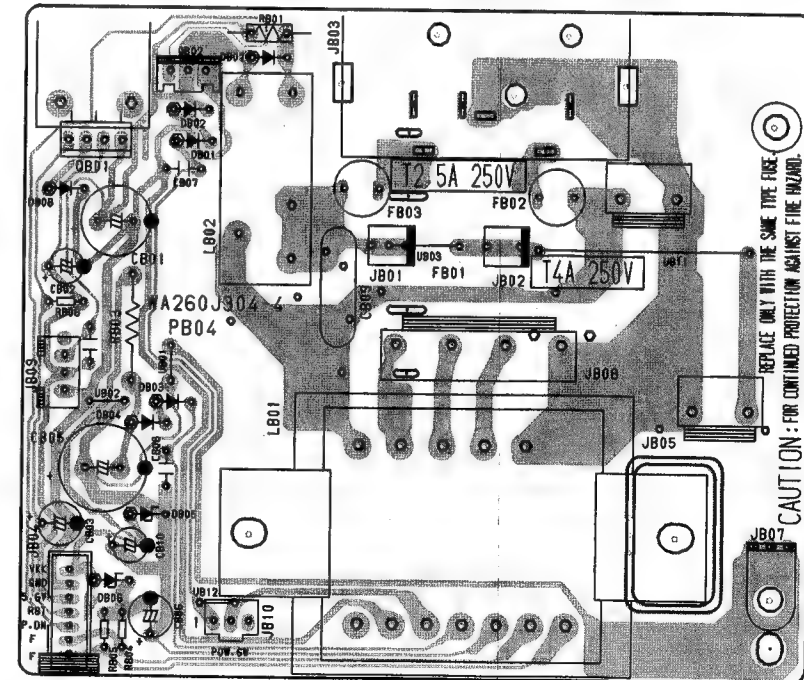
PB04-Back-up P.C. Board , AVR80 **IB** Version



PB04-Back-up P.C. Board , AVR80MK II **BK** Version

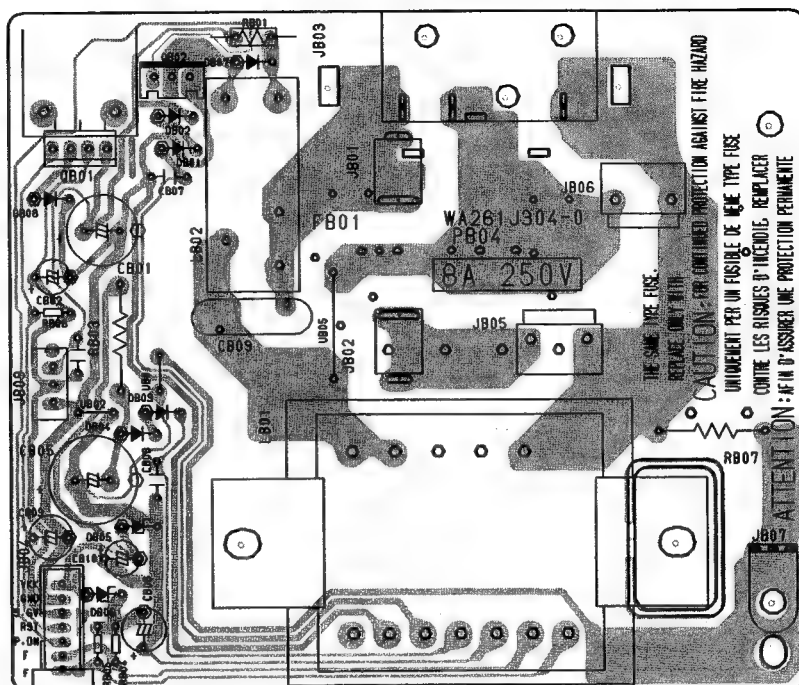


PB04-Back-up P.C. Board , AVR80 **IB** [MOMS] Version

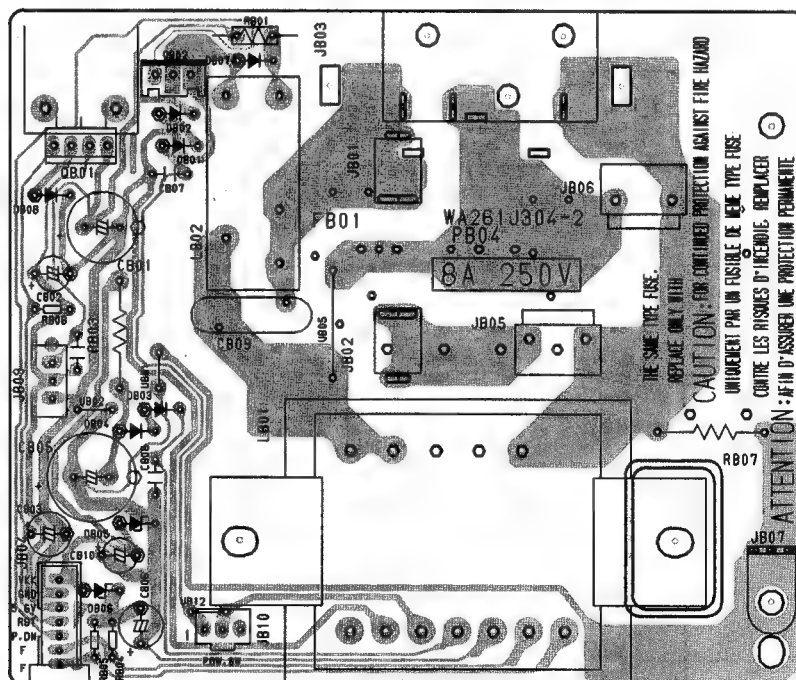


P.C. BOARDS (1)

PB04-Back-up P.C. Board , AVR80 **BK** Version



PB04-Back-up P.C. Board , AVR80MK II **BK** Version



F

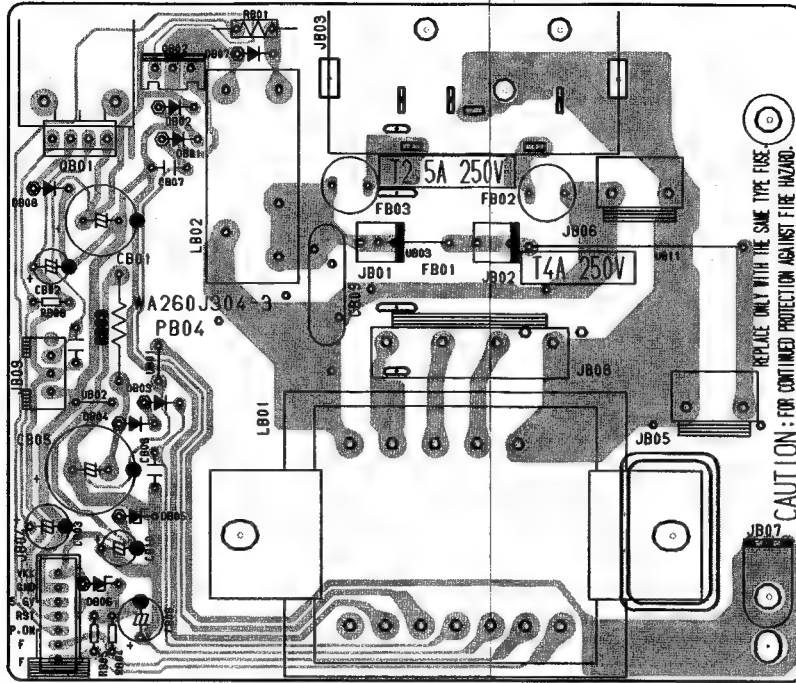
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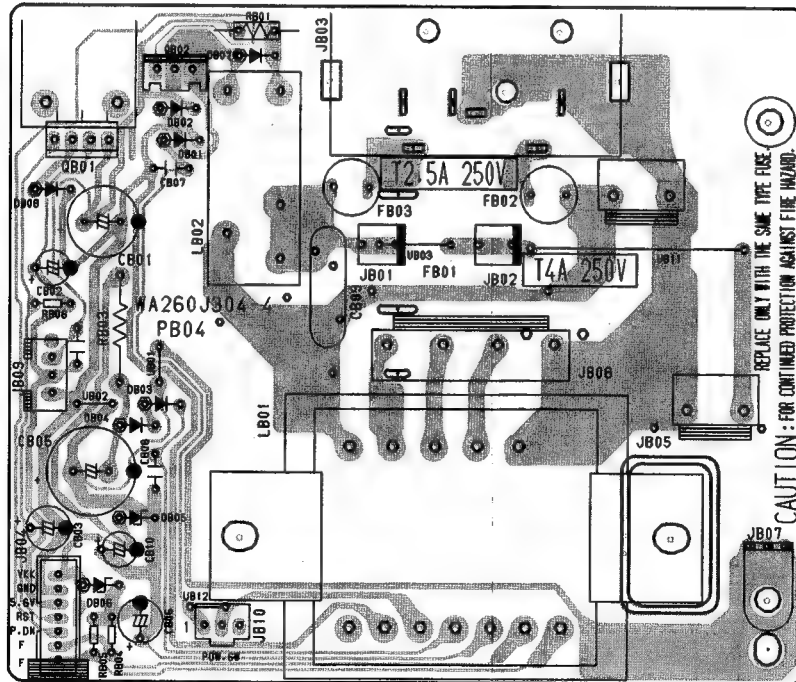
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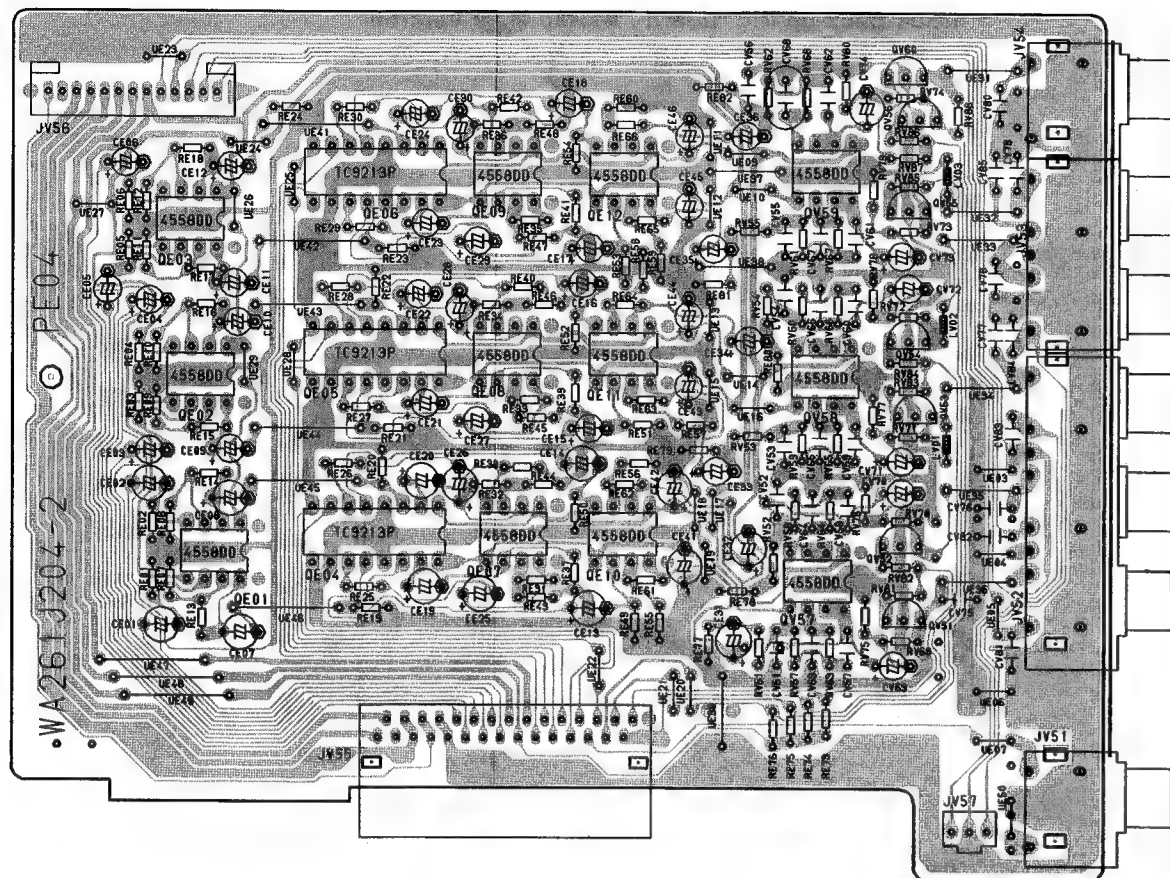
PB04-Back-up P.C. Board , AVR80 **IB** Version



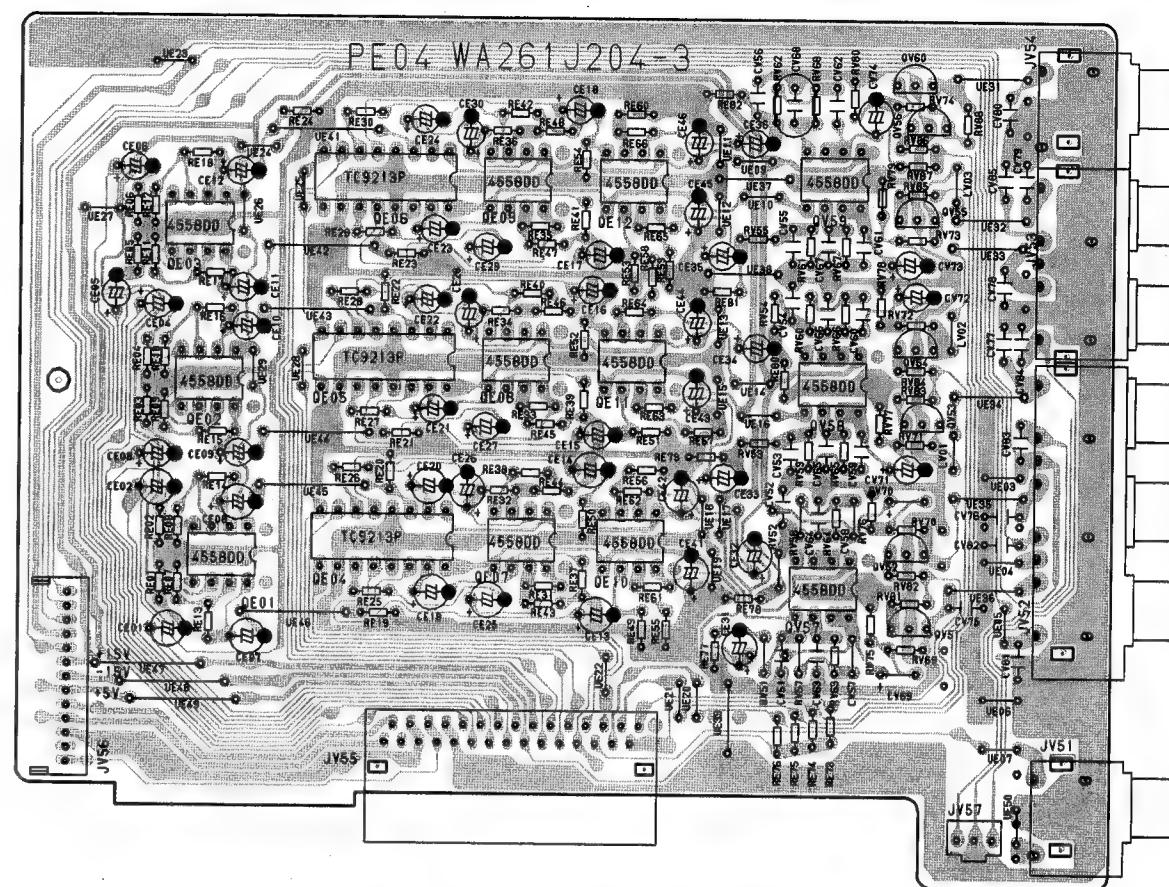
PB04-Back-up P.C. Board , AVR80 **IB** [MOMS] Version



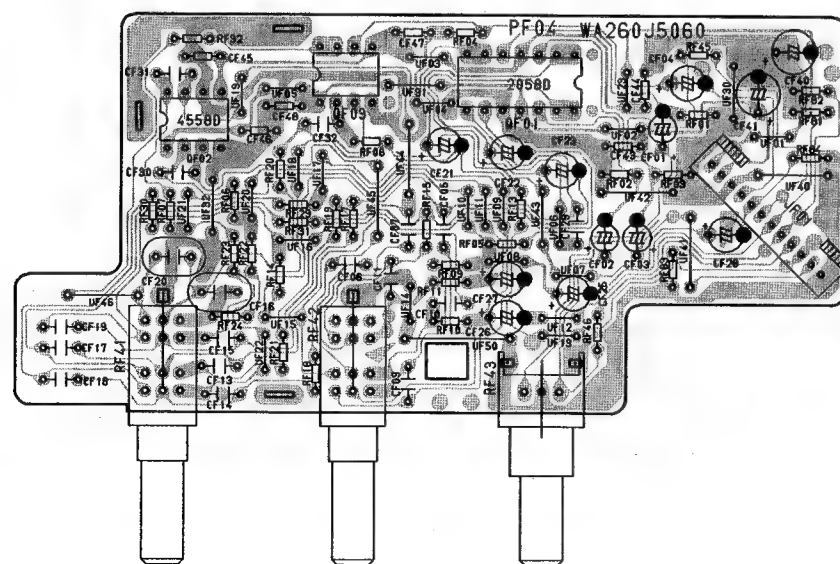
PE04-Ele. Vol P.C. Board , AVR80 **BK** **IB** Only



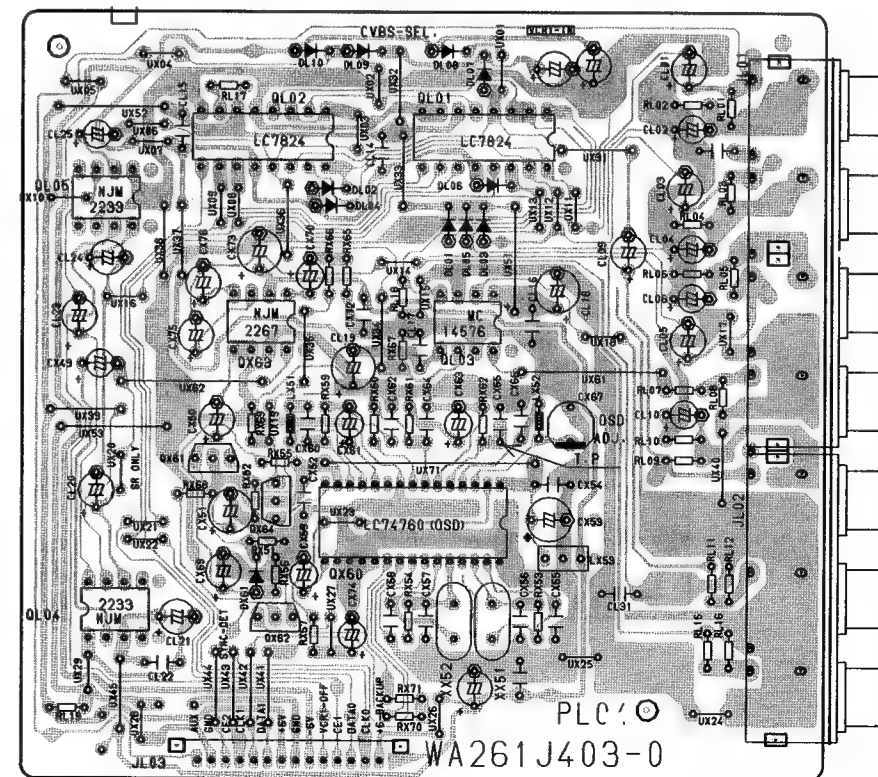
PE04-Ele. Vol P.C. Board , AVR80MK II **BK** /AVR80 **IB** [MOMS]



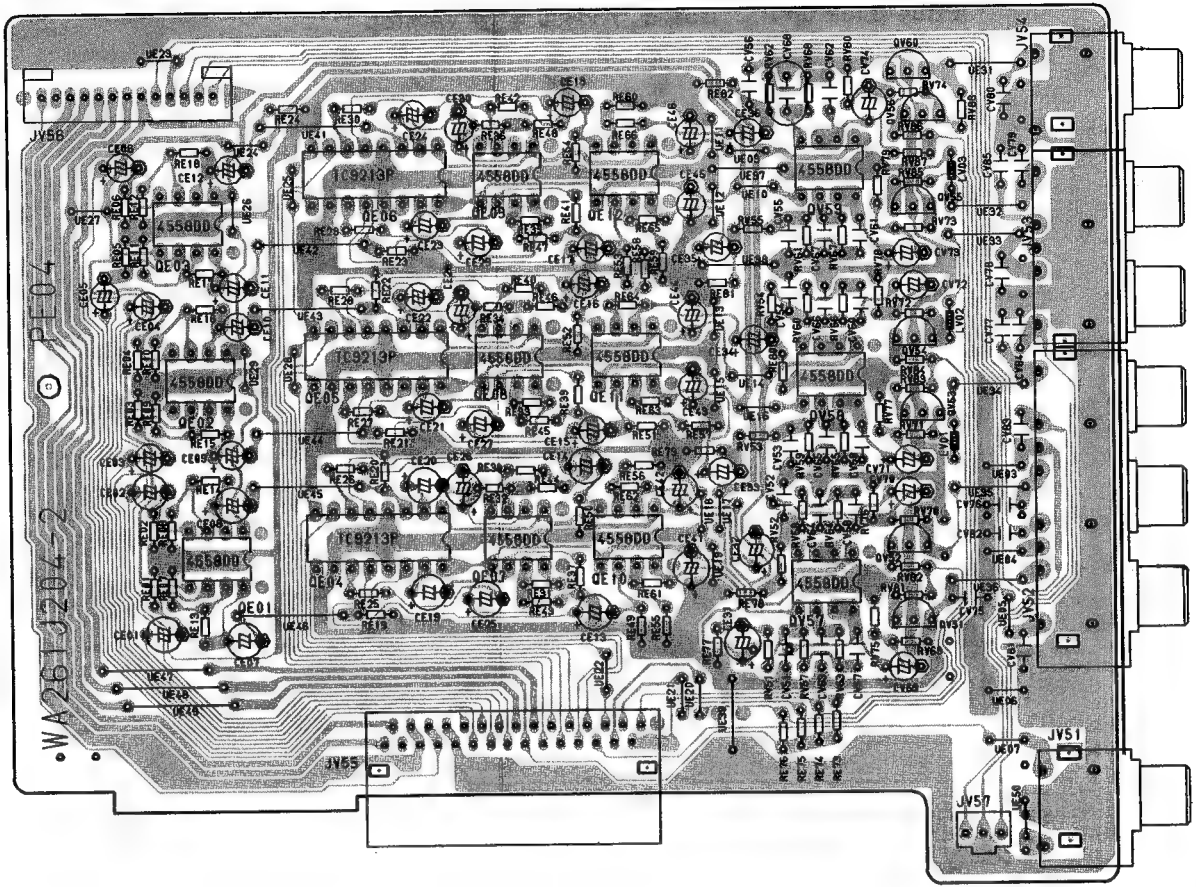
PF04-Tone P.C. Board



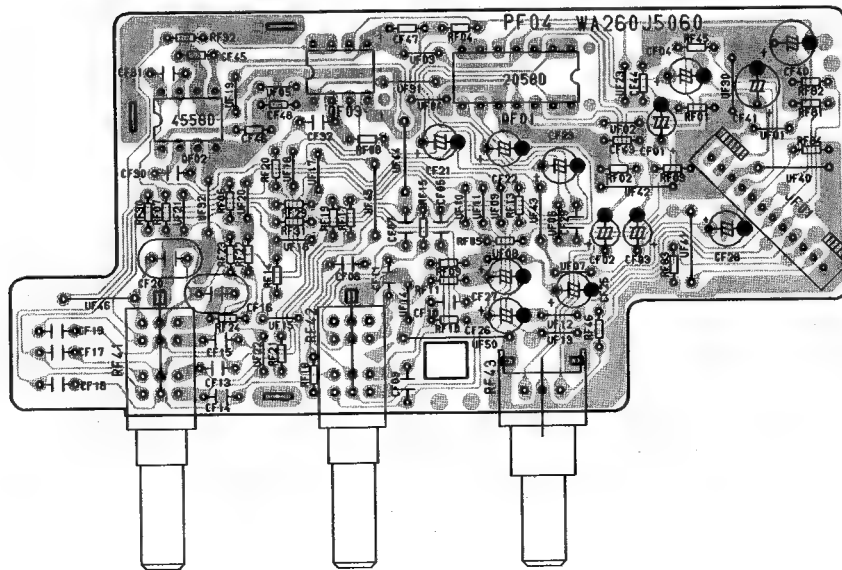
PL04-Video Selector P.C. Board



PE04-Ele. Vol P.C. Board , AVR80 **BK** **IB** Only



PF04-Tone P.C. Board



F

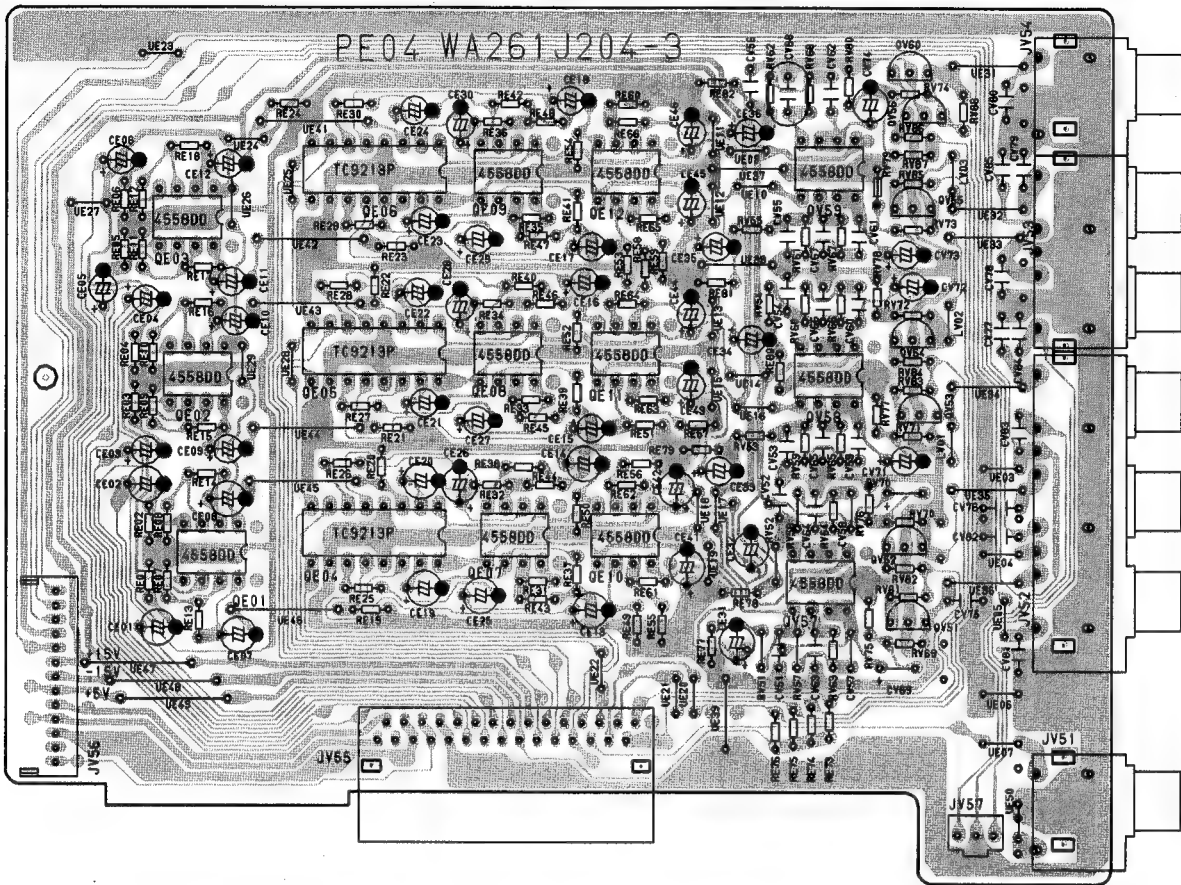
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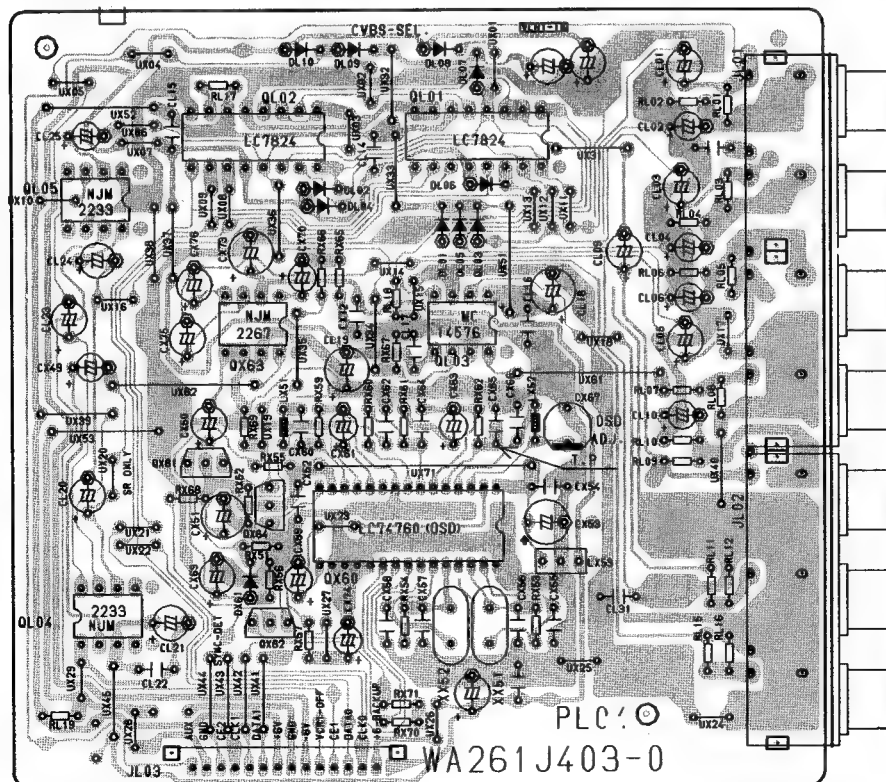
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PE04-Ele. Vol P.C. Board , AVR80MK II BK /AVR80 IB [MOMS]

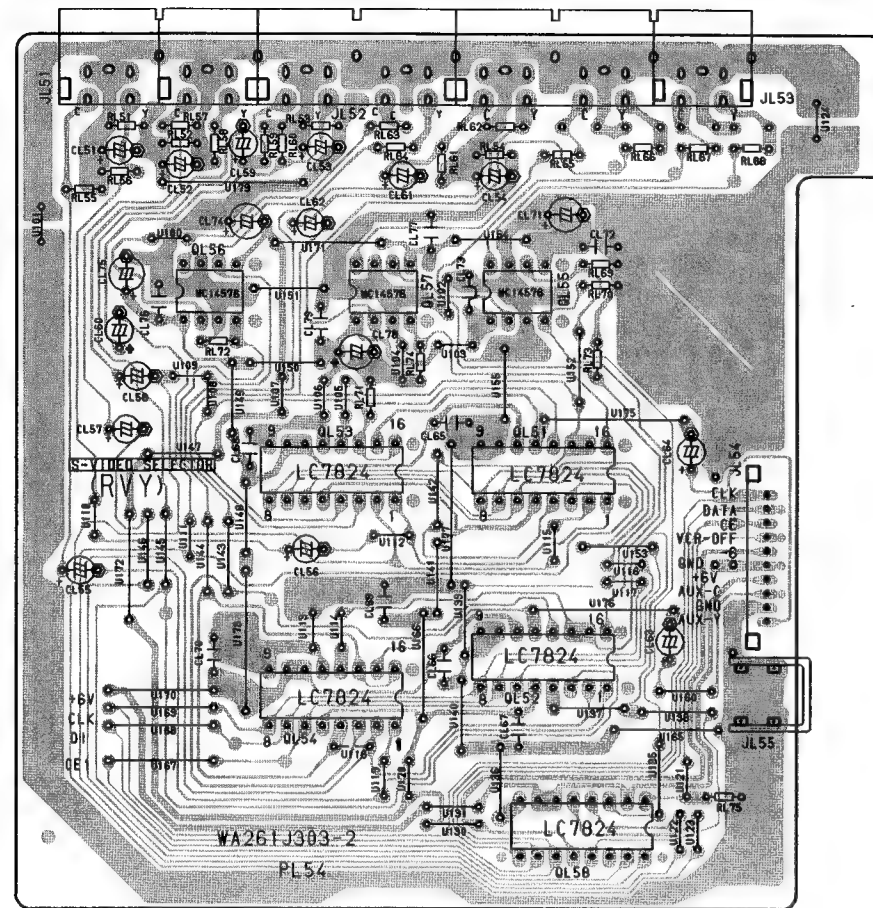


PL04-Video Selector P.C. Board

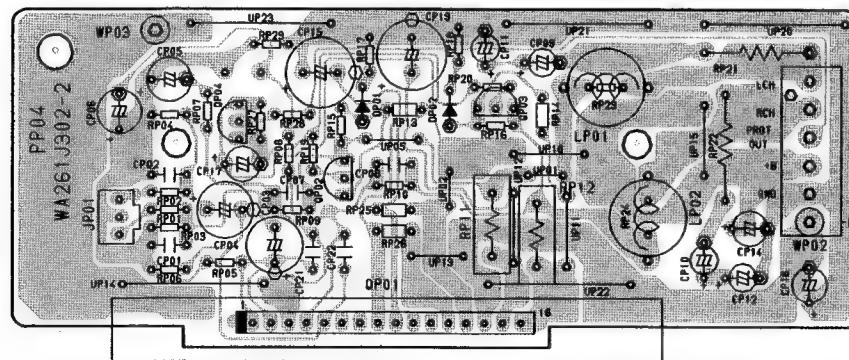


P.C. BOARD (3)

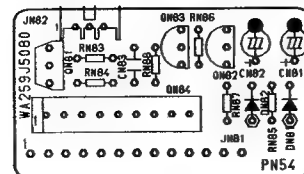
PL54-S-Video P.C. Board



PP04-Surround Amp P.C. Board



PN54-SPK Protect P.C. Board , AVR80MK II **BK** /AVR80 **IB** [MOMS]



A	B	C	D	E
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1



3

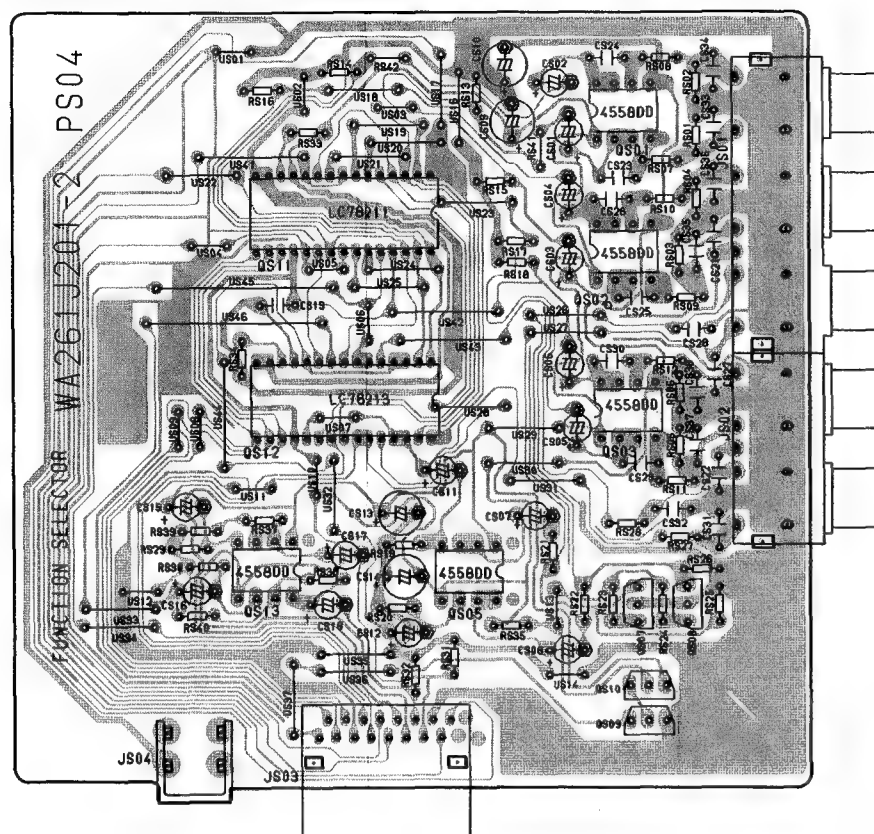


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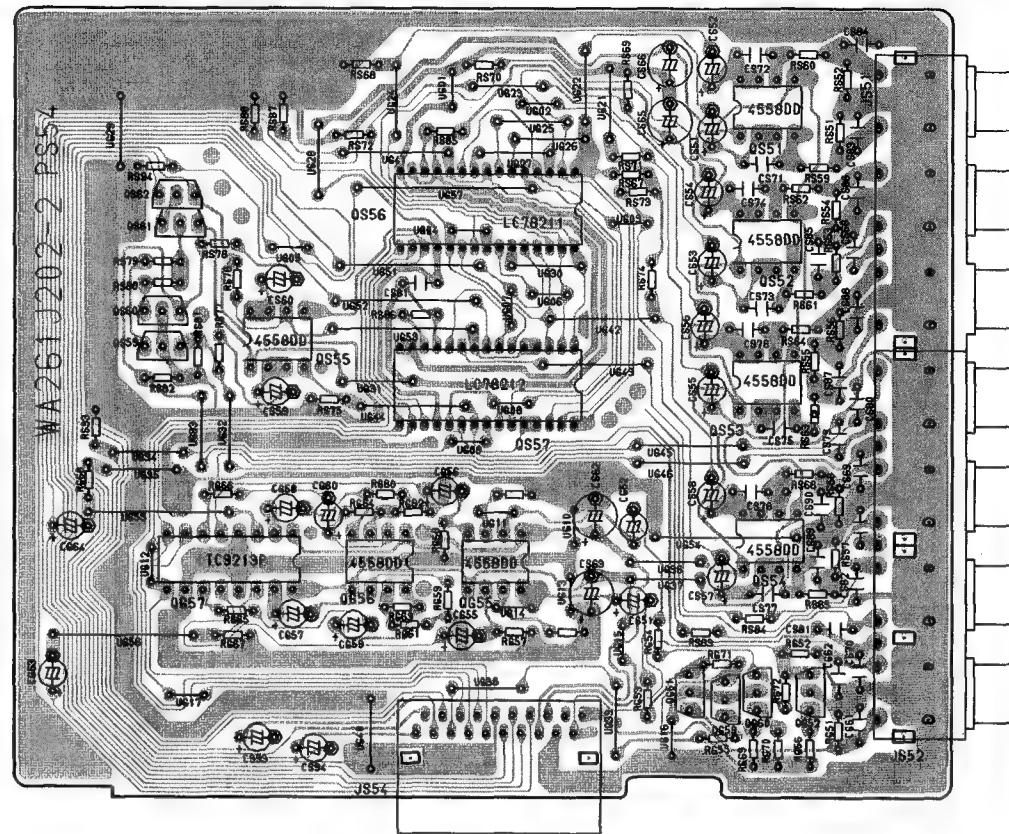


P.C. BOARD (4)

PS04-Audio Function P.C. Board



PS54-V-Audio Function P.C. Board



A B C D E

P.C. BOARD (4)

1

PS04-Audio Function P.C. Board

2

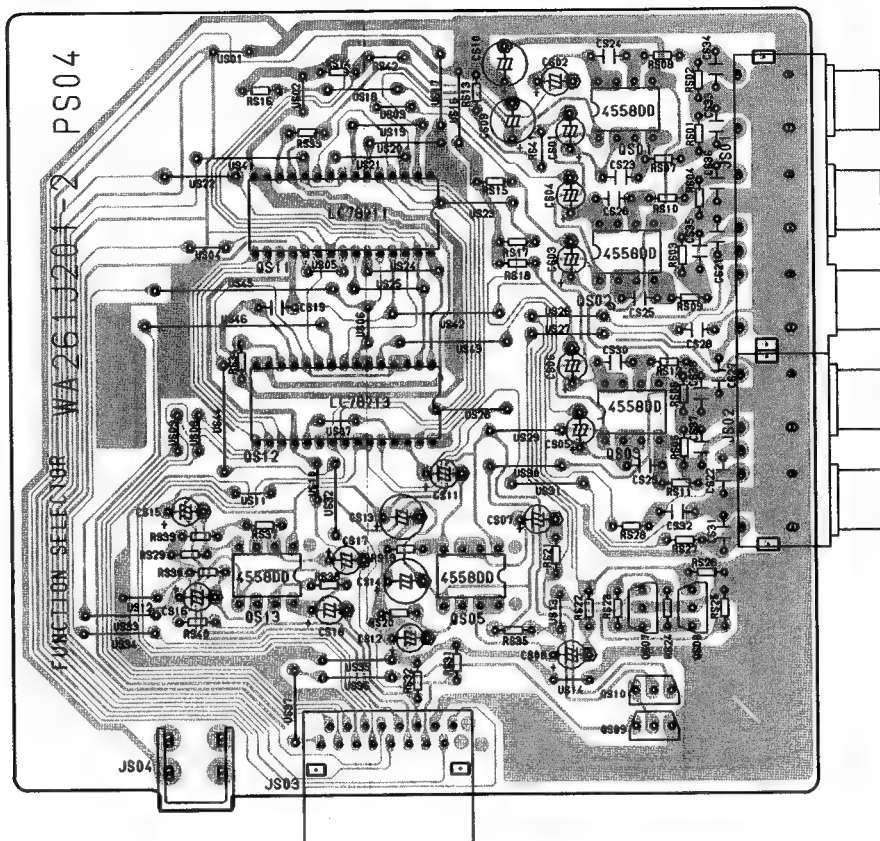
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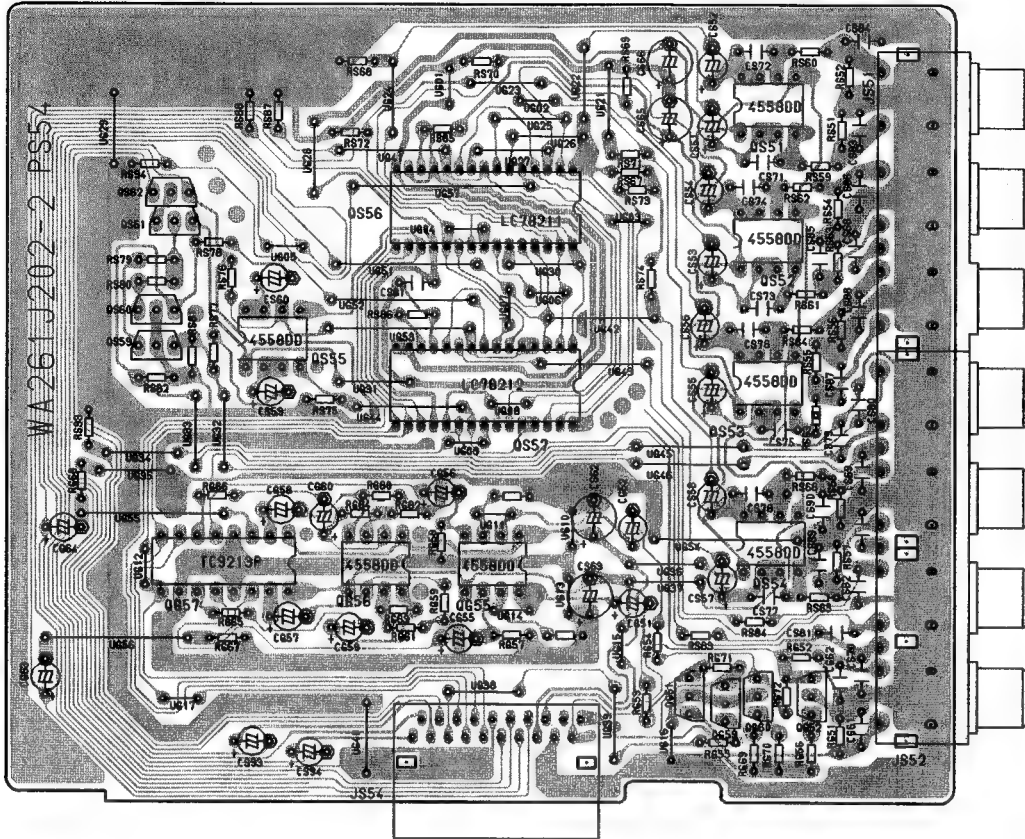
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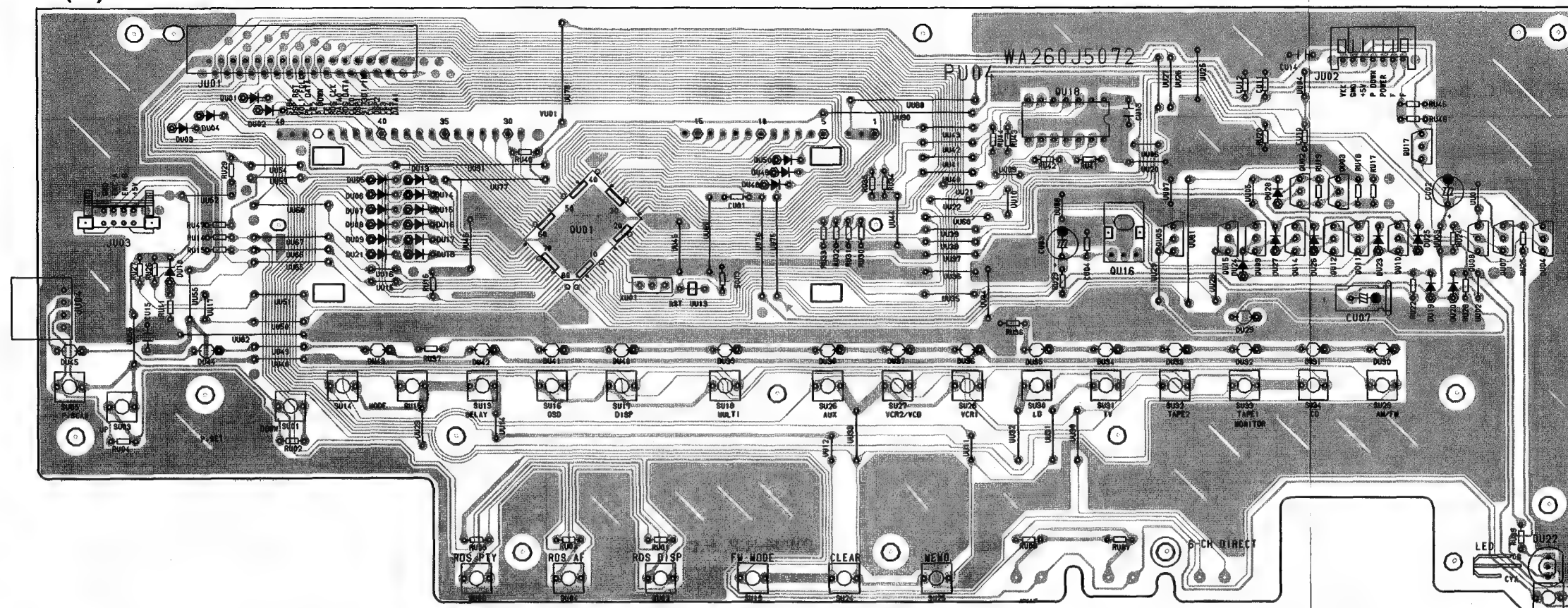
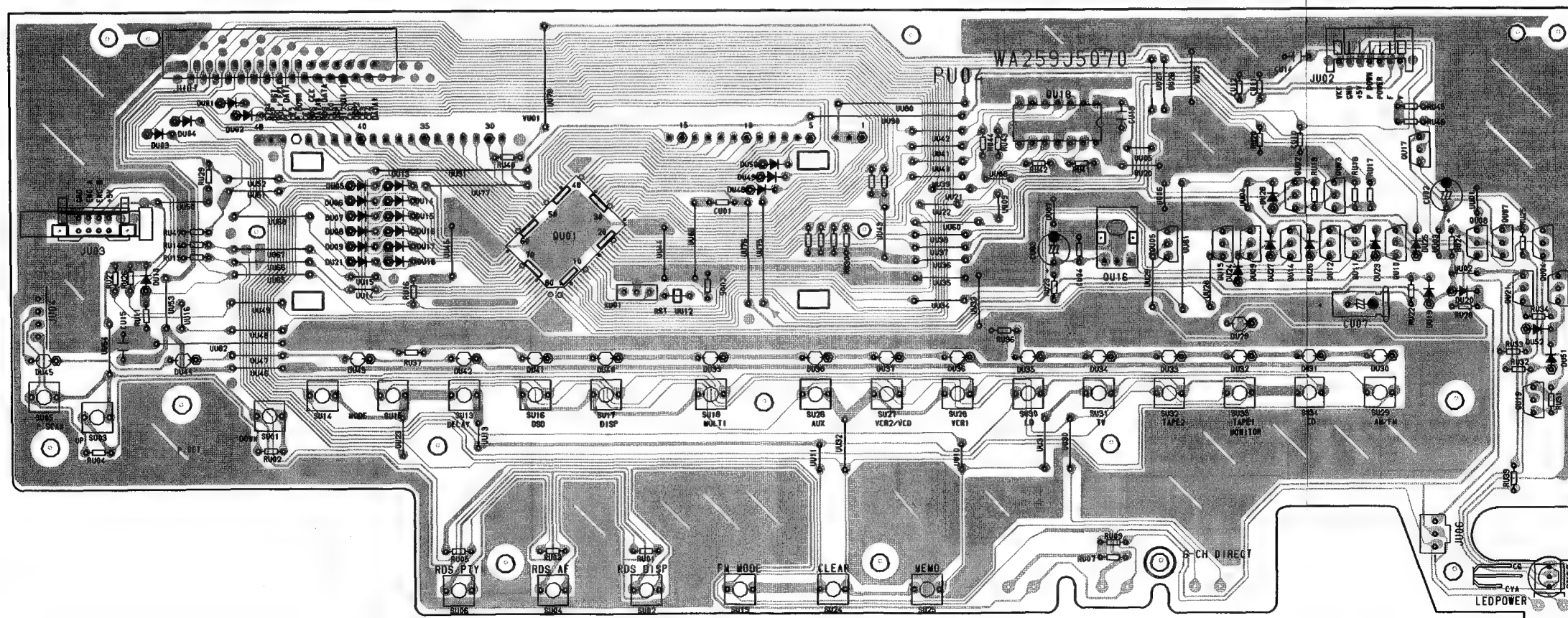
H

I

J

PS54-V-Audio Function P.C. Board

P.C. BOARD (5)

PU04-Front P.C. Board , AVR80 **BK** **IB** OnlyPU04-Front P.C. Board , AVR80MK II **BK** /AVR80 **IB** [MOMS]

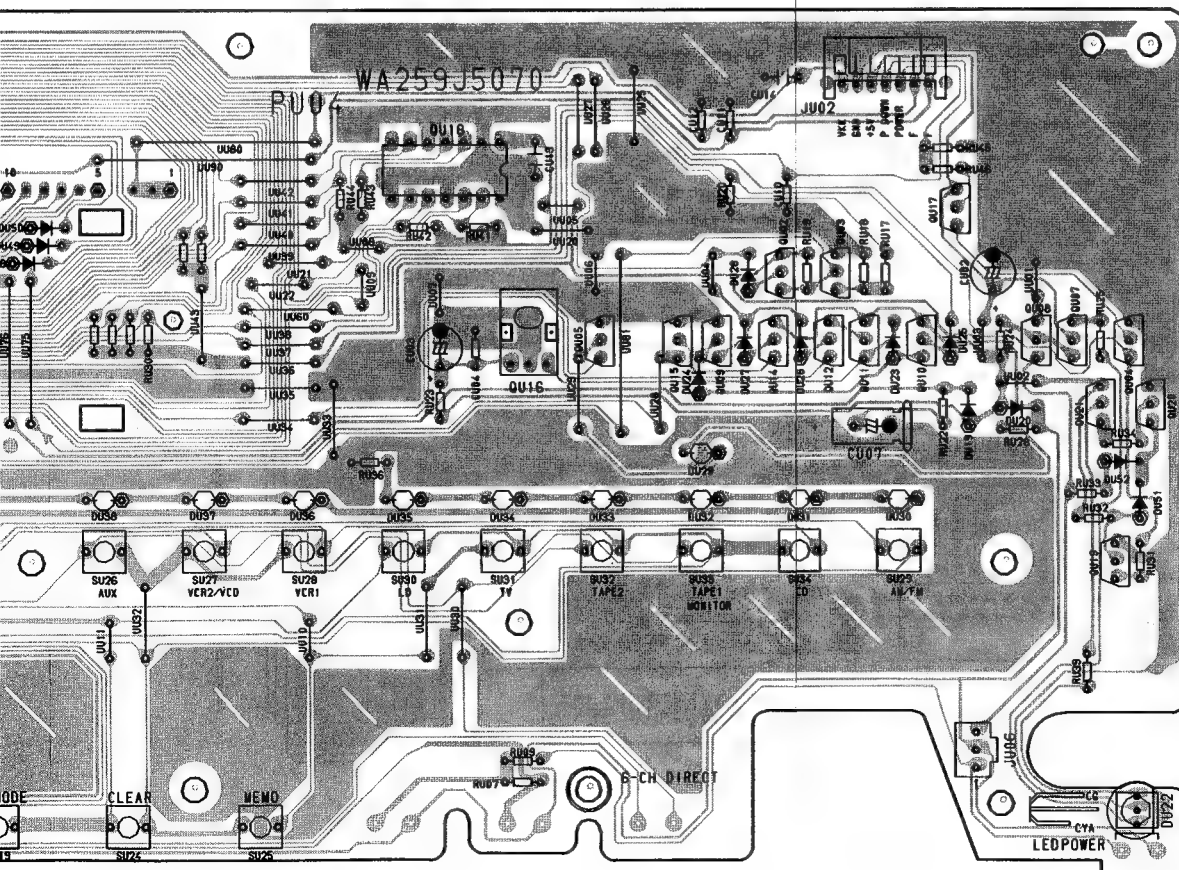
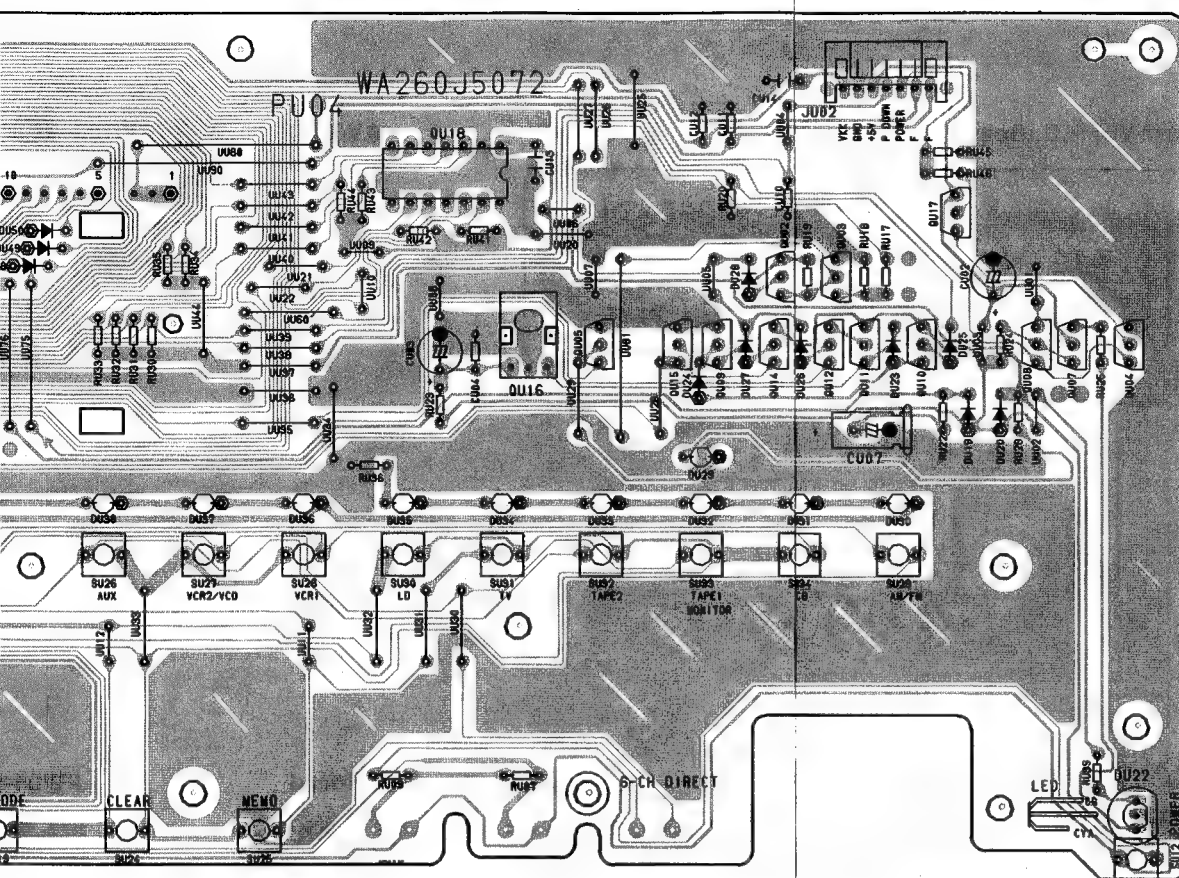
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IB



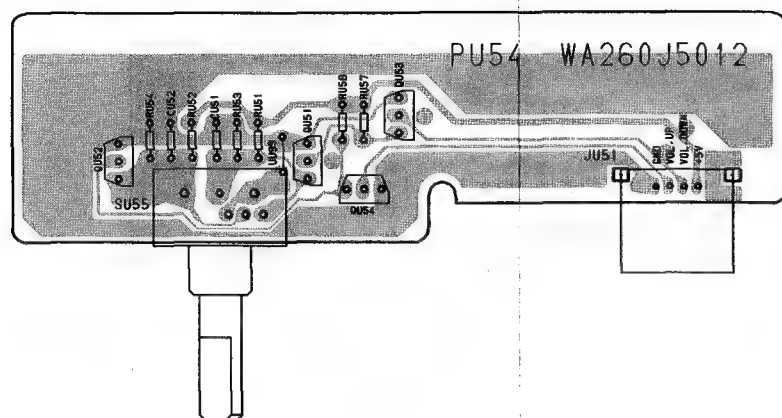
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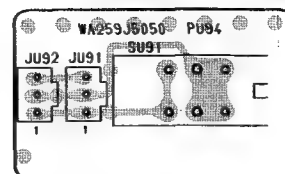
P.C. BOARD (6)

PU54-Master Vol P.C. Board

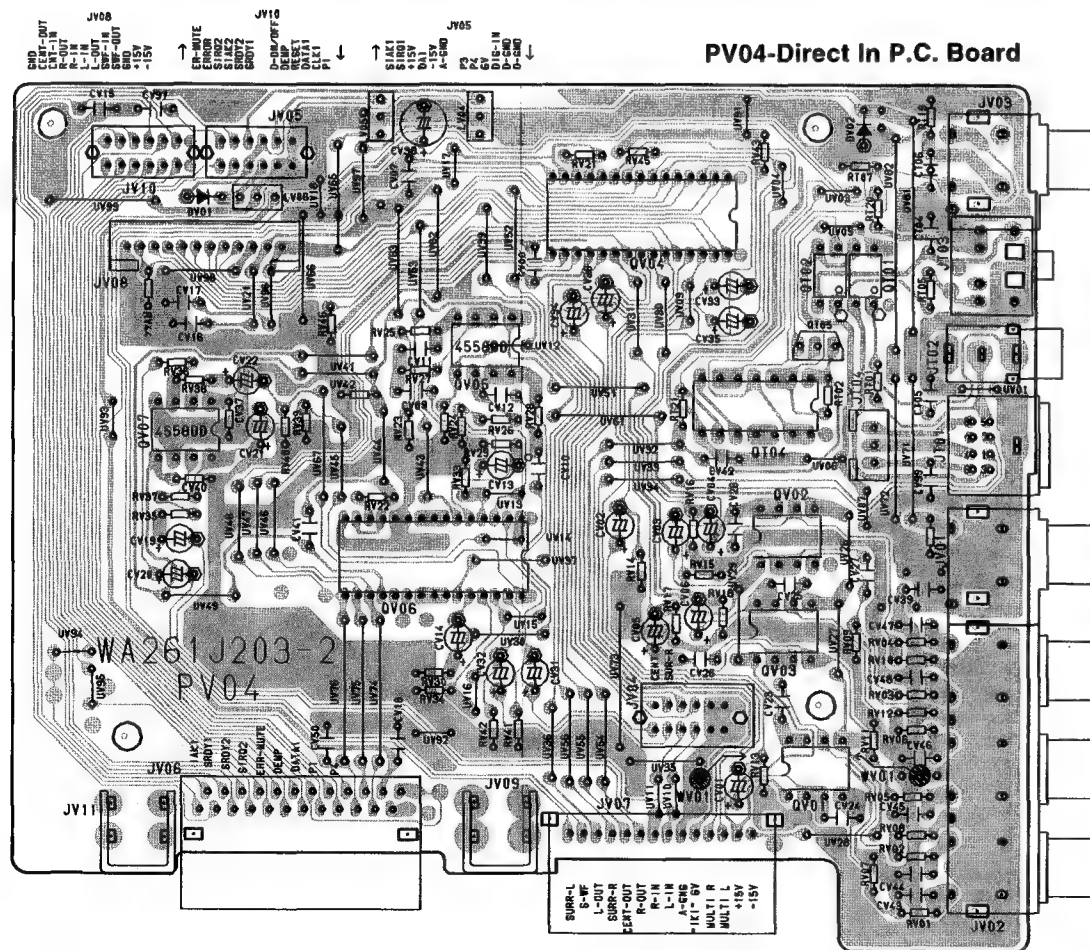


PU94-Power SW P.C. Board

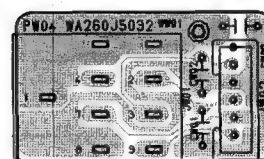
AVR80MK II BK / AVR80 IB [MOMS]



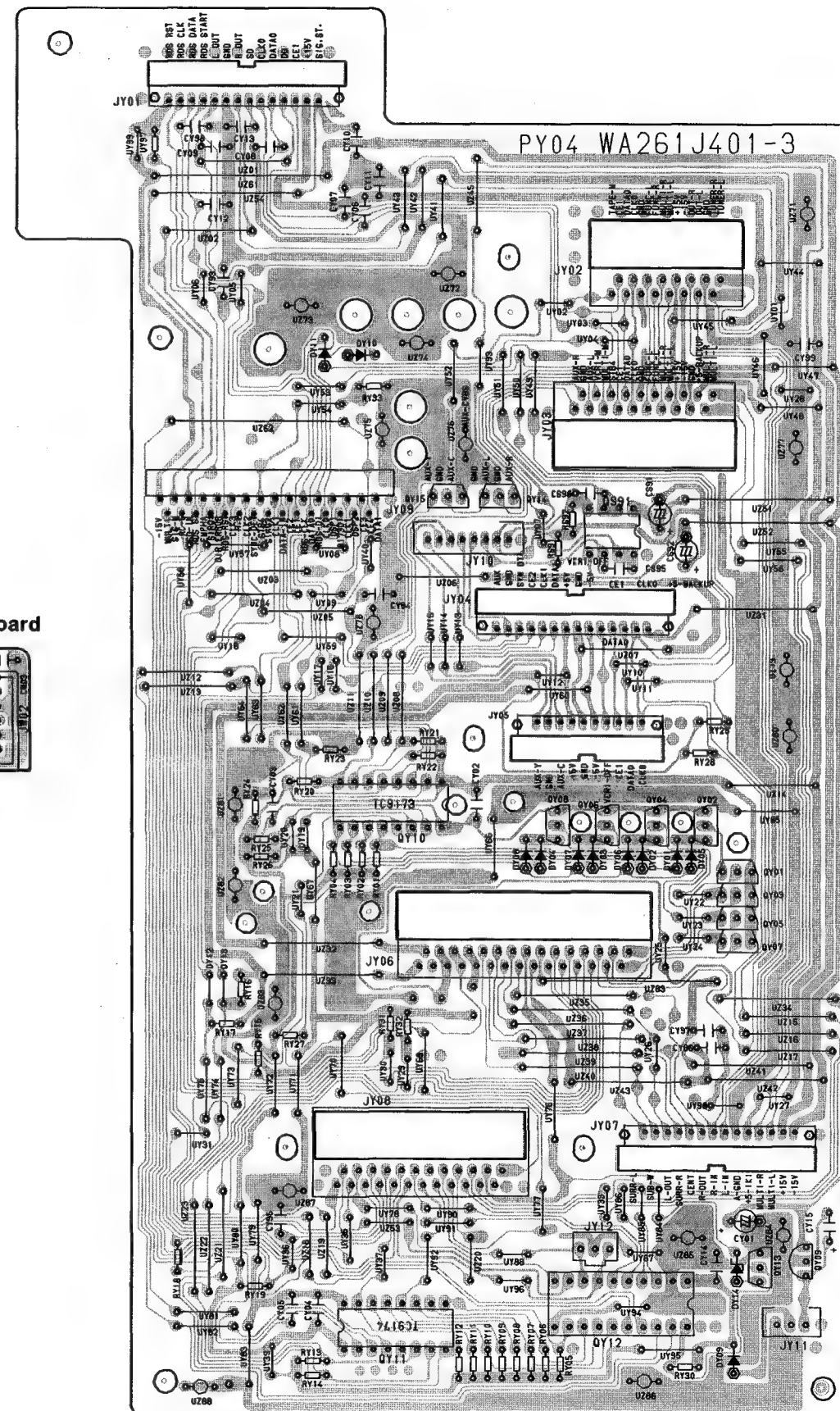
PV04-Direct In P.C. Board



PW04-H.P. P.C. Board

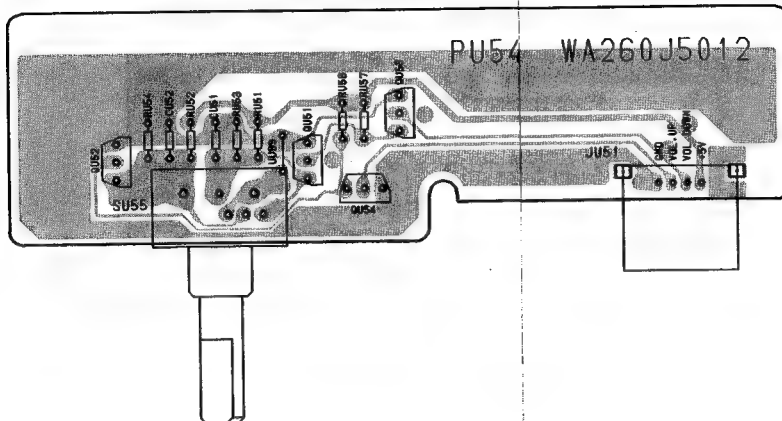


PY04-Connect P.C. Board

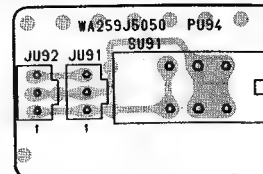


P.C. BOARD (6)

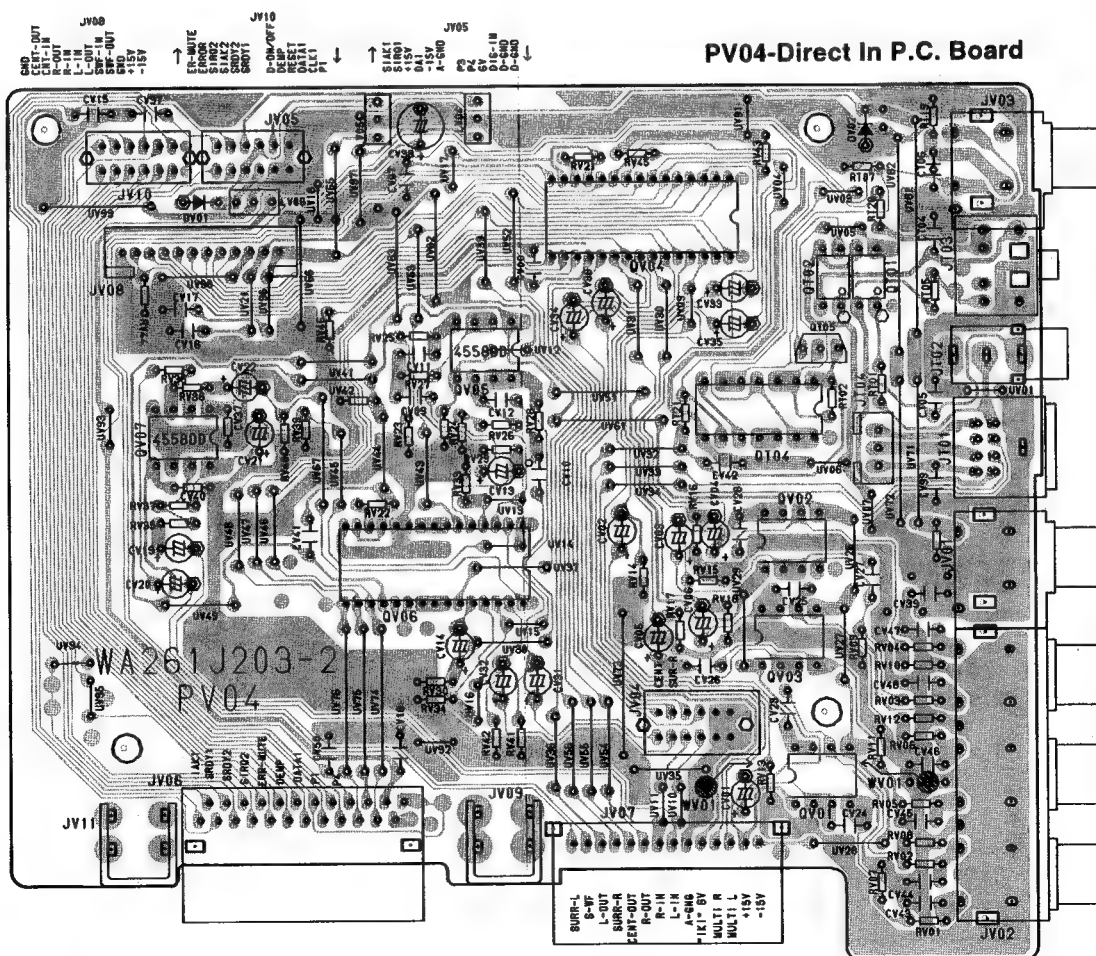
PU54-Master Vol P.C. Board



PU94-Power SW P.C. Boa

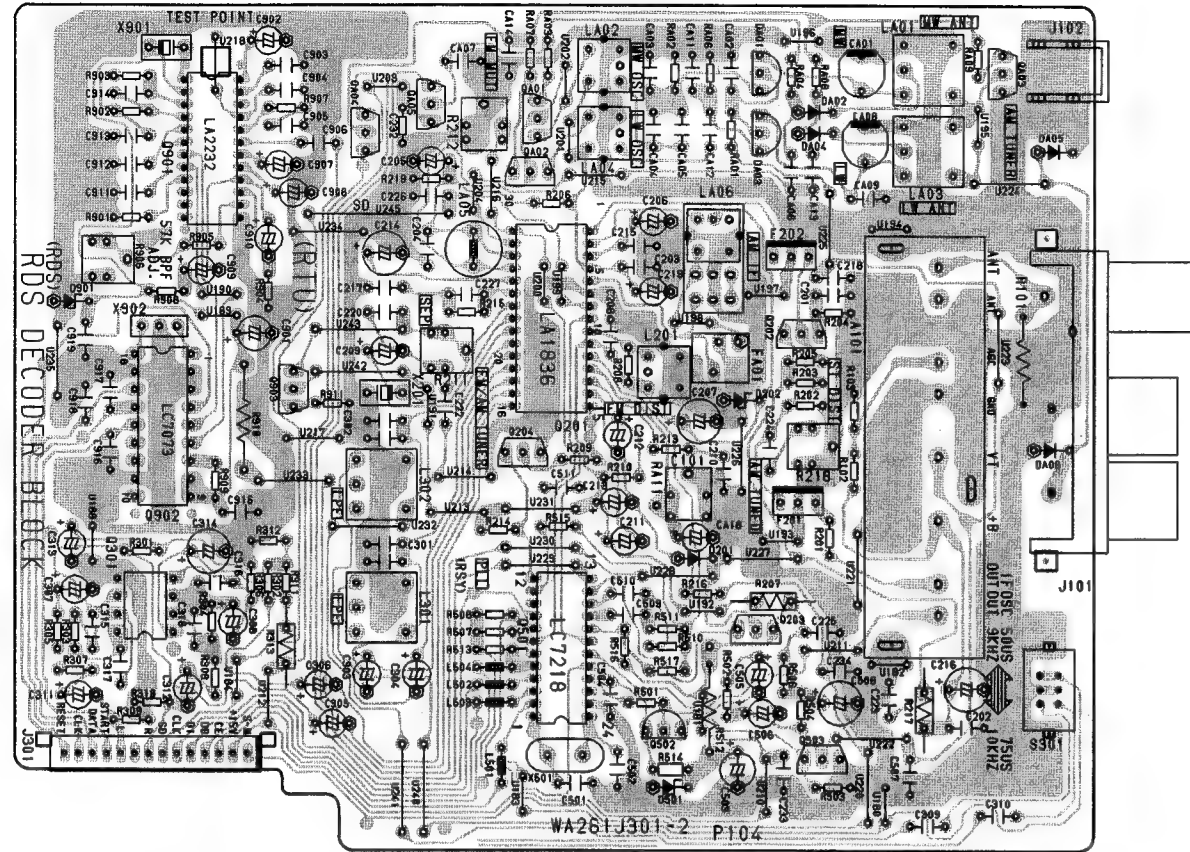
AVR80MK II BK /AVR80

PV04-Direct In P.C. Board

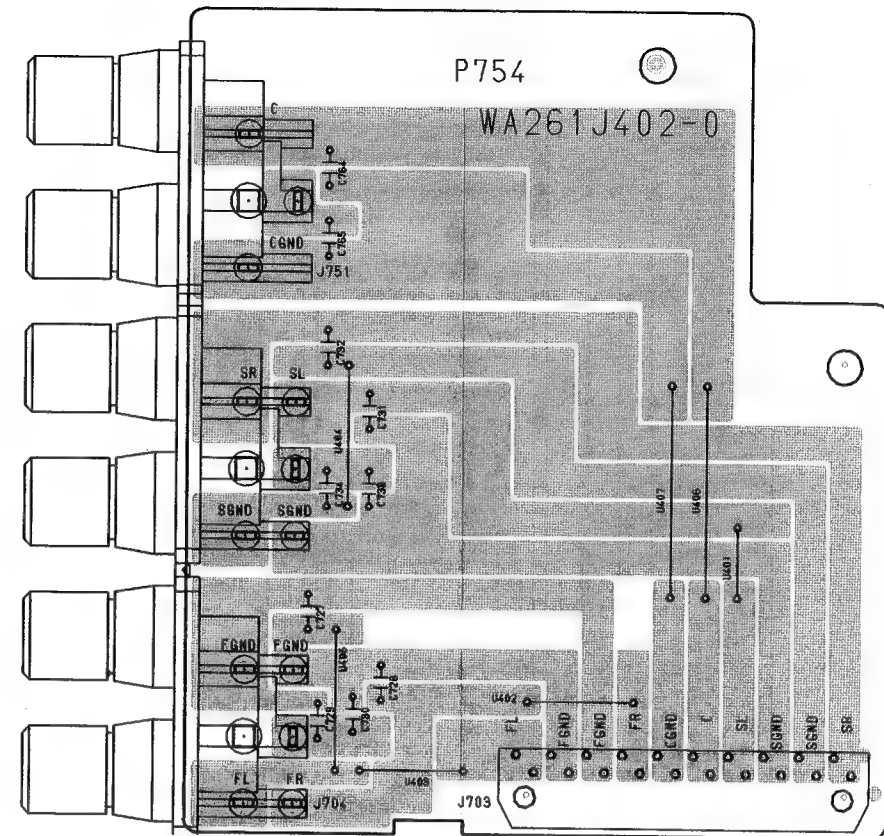


P.C. BOARD (7)

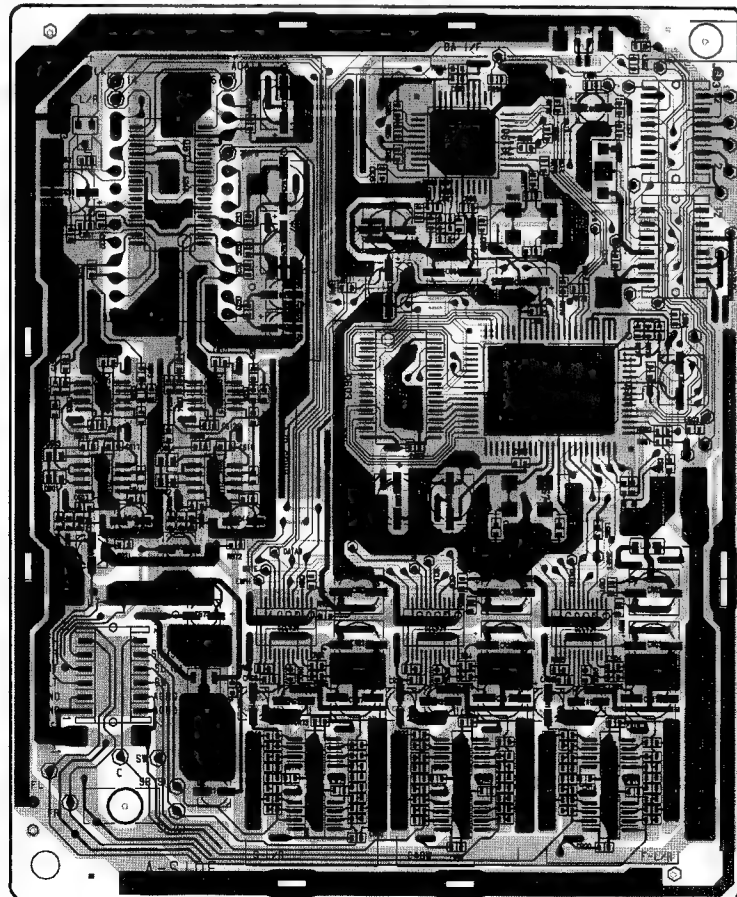
P104-Tuner P.C. Board



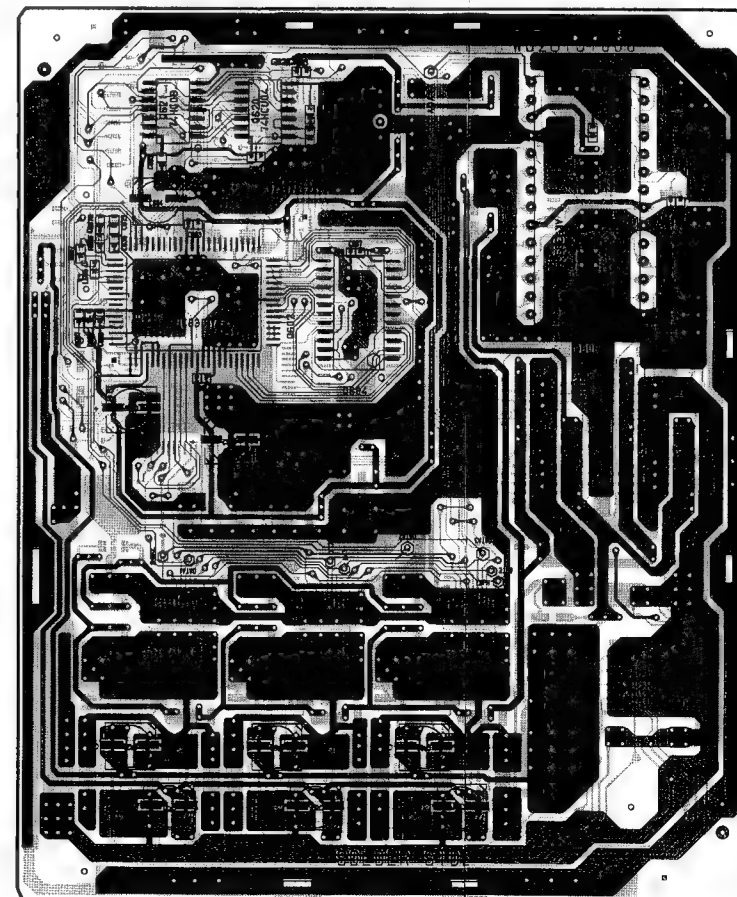
P754-SPK Terminal P.C. Board



P604-THX Pro-Logic DSP P.C. Board

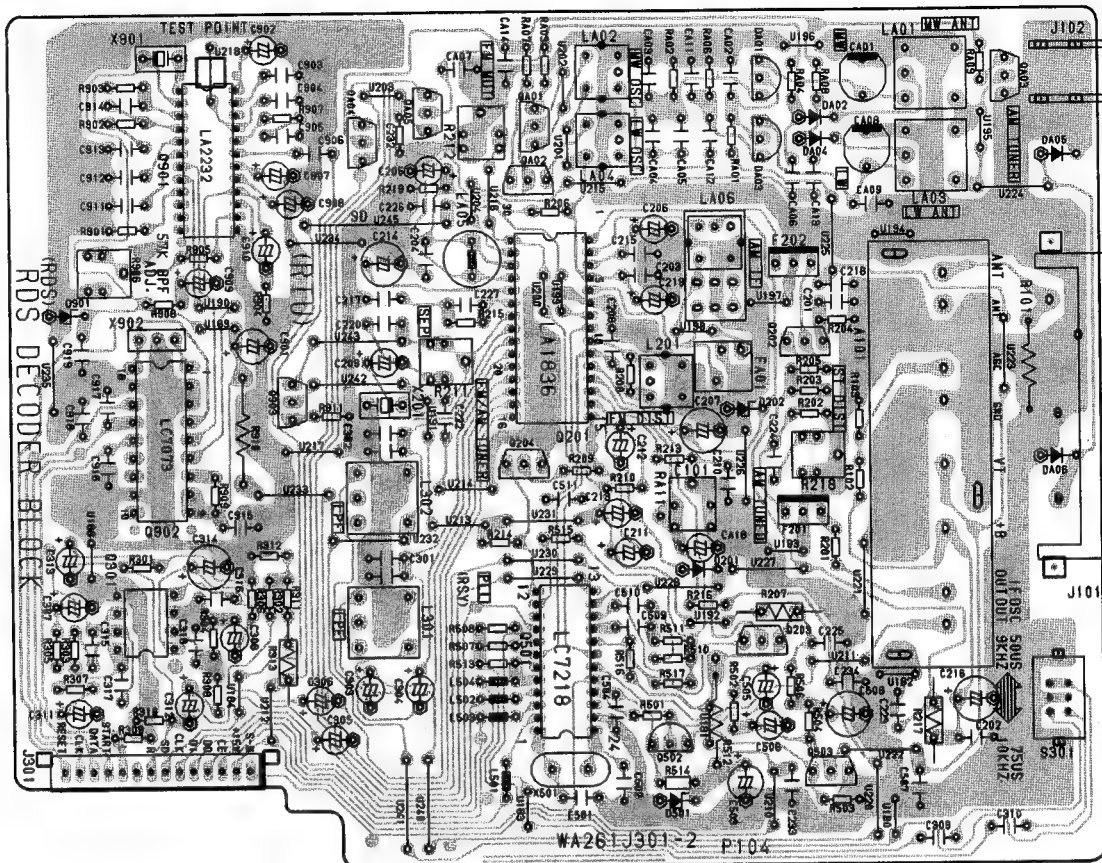


P604-THX Pro-Logic DSP P.C. Board

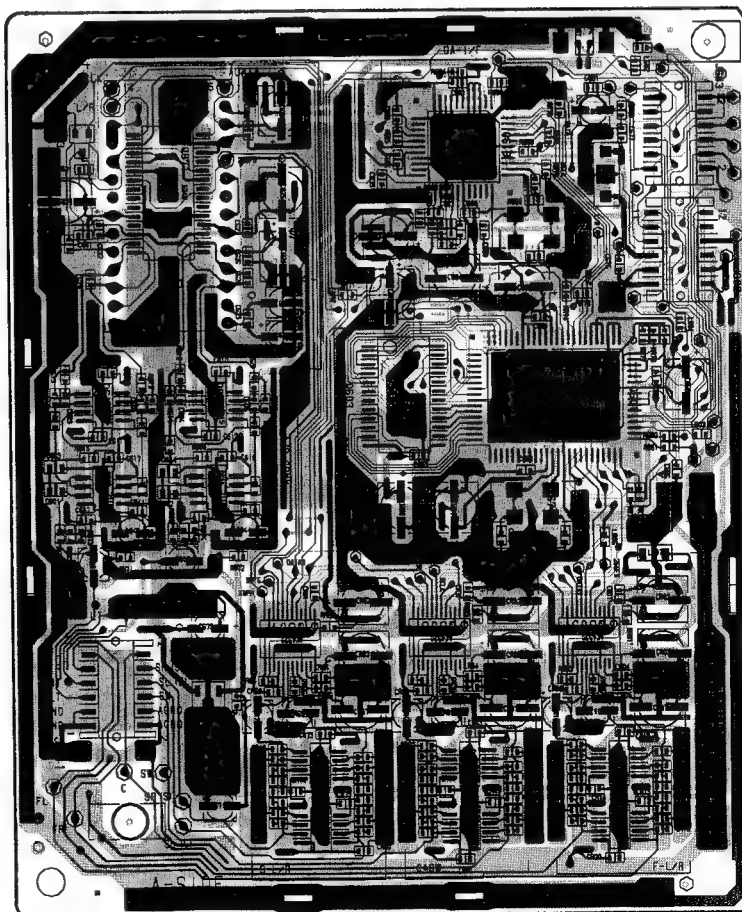


P.C. BOARD (7)

P104-Tuner P.C. Board



P604-THX Pro-Logic DSP P.C. Board



F

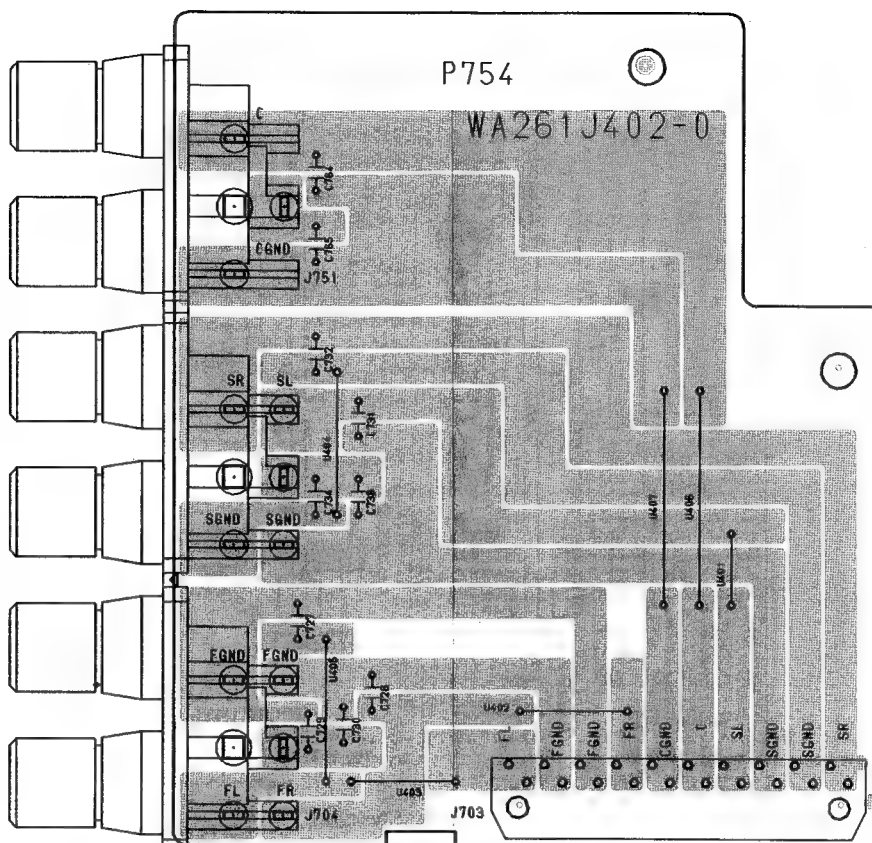
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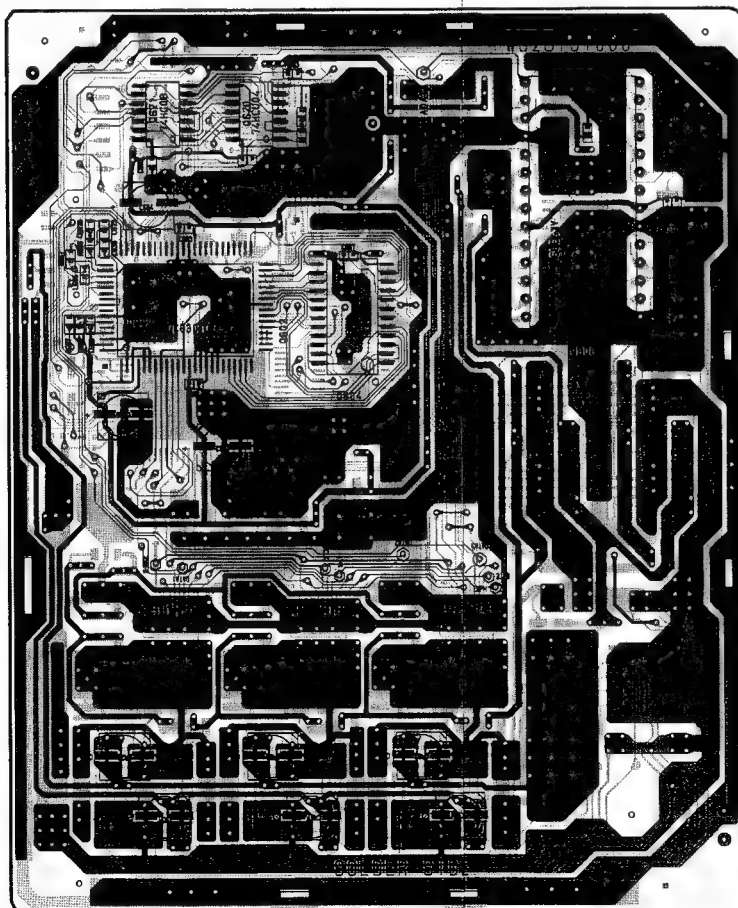
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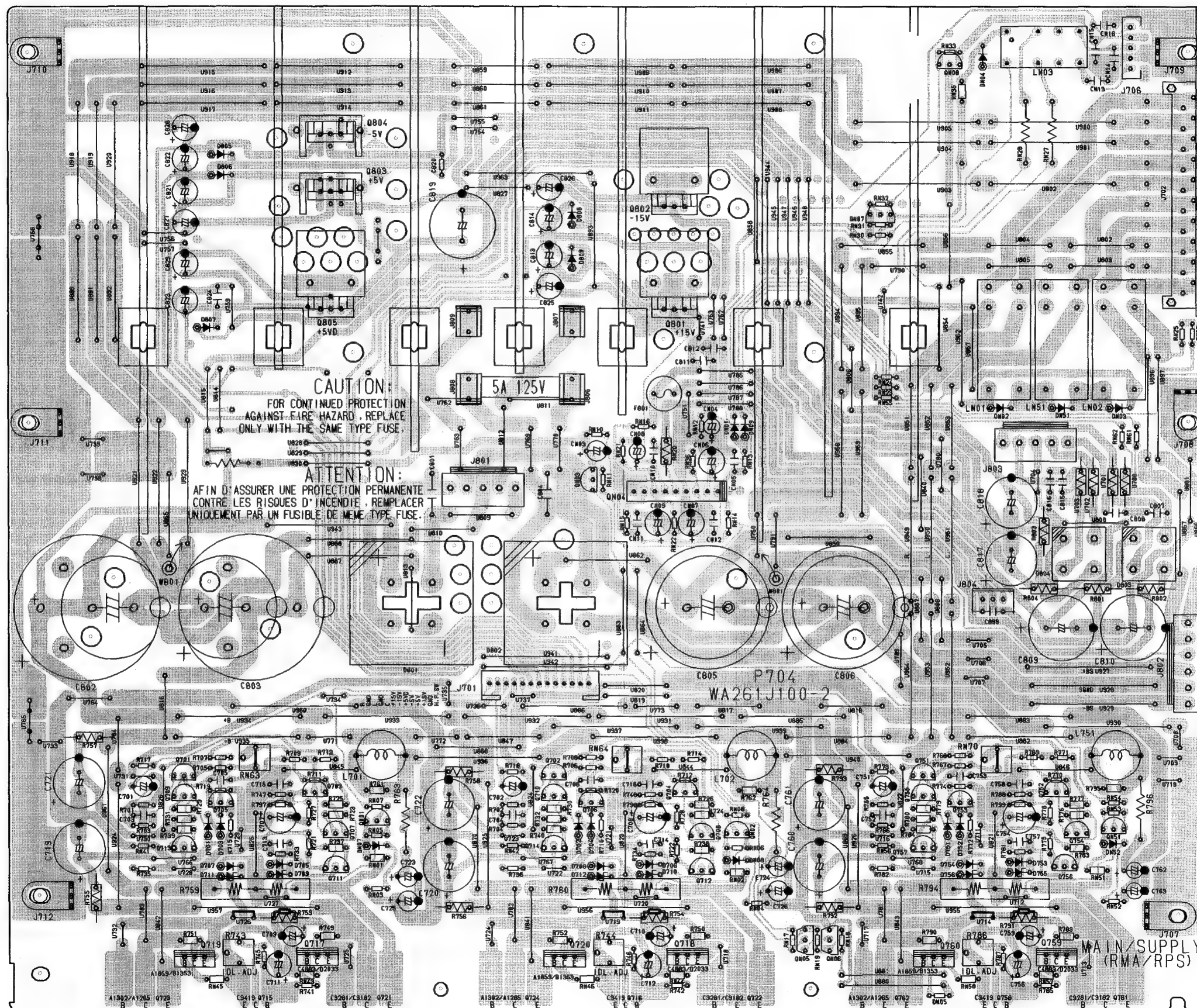
P754-SPK Terminal P.C. Board



P604-THX Pro-Logic DSP P.C. Board

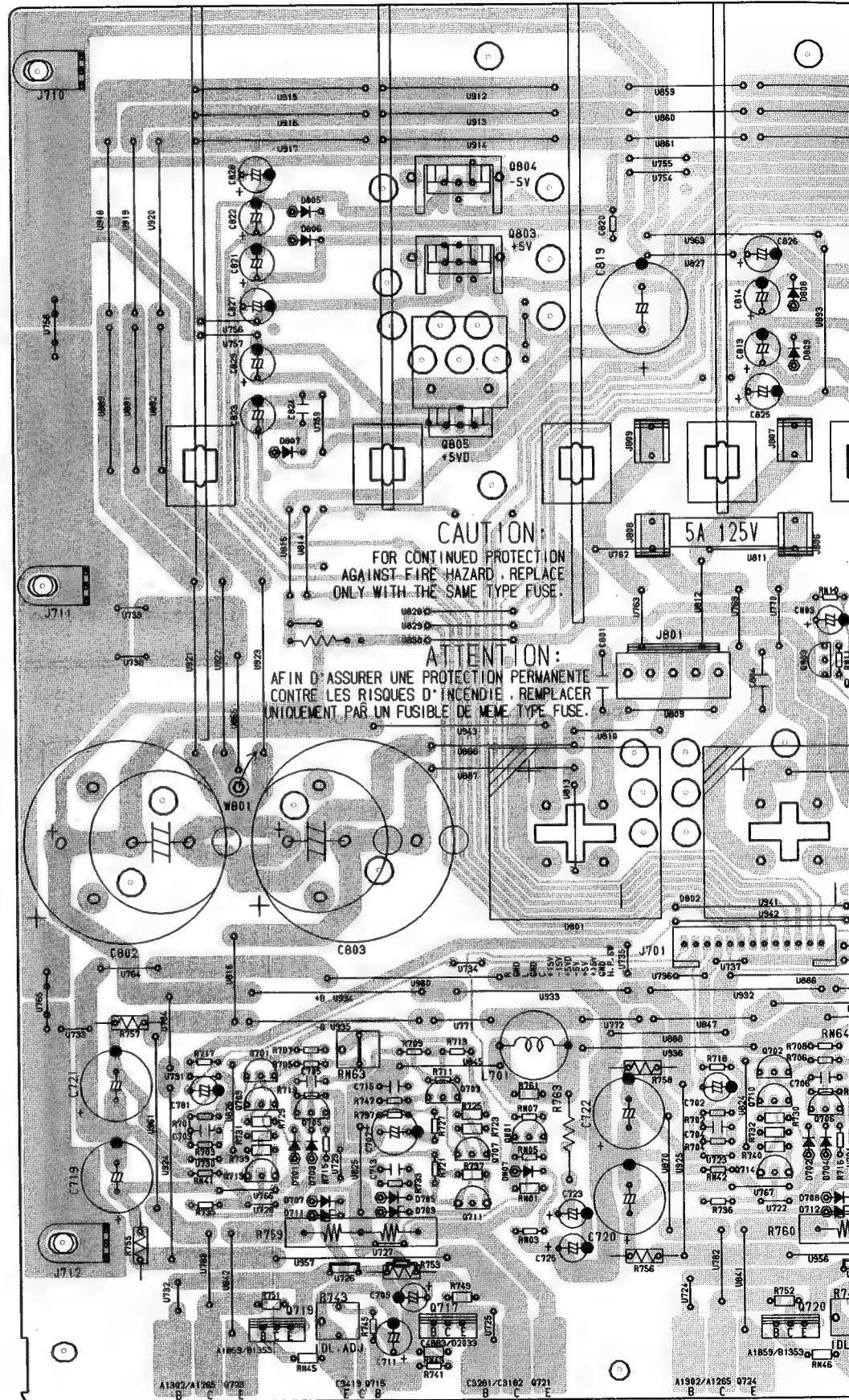


P704-Main Amp P.C. Board



P.C. BOARD (8)

P704-Main Amp P.C. Board



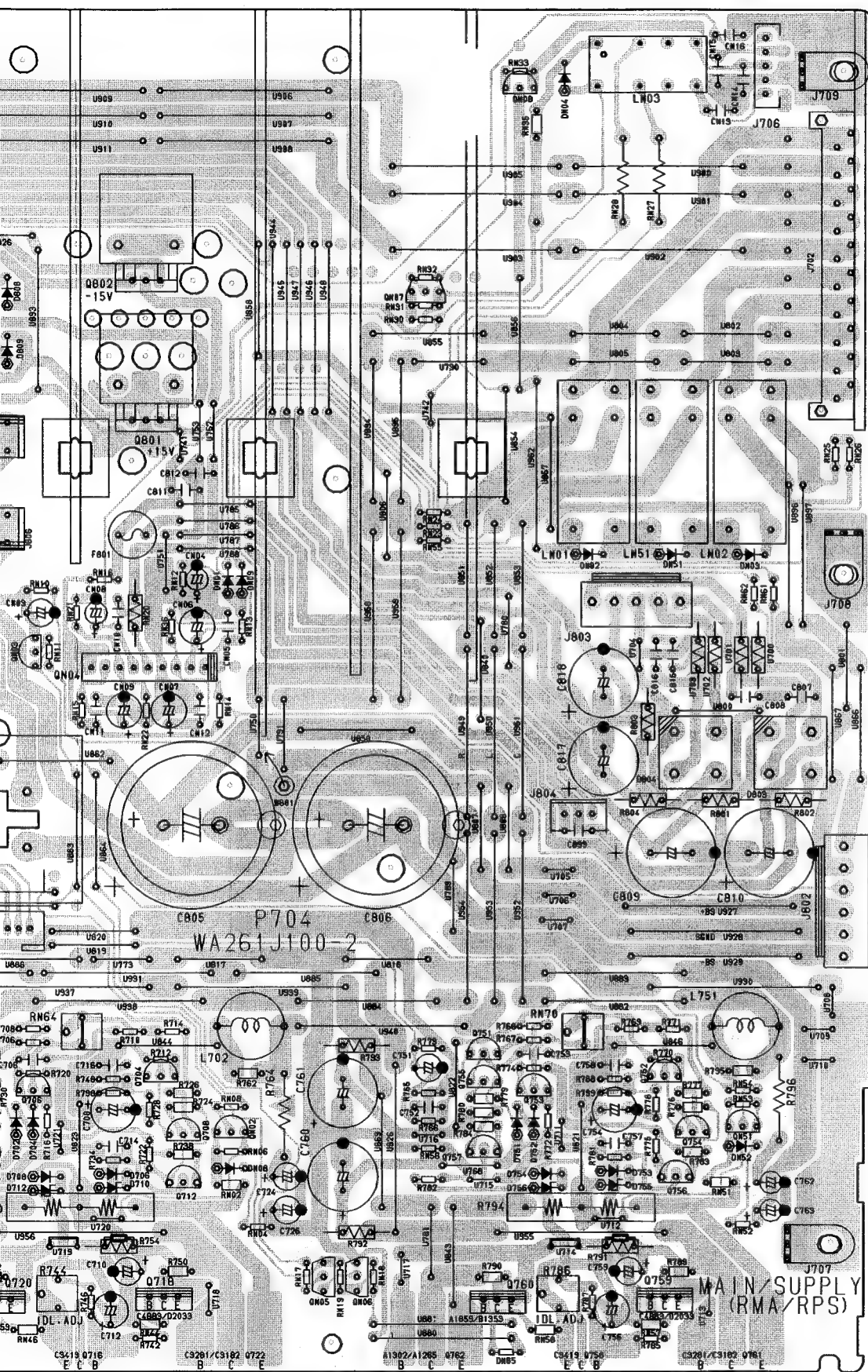
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ELECTRICAL PARTS LIST

Ref. No.	Part. No.	Description
PB04-BACK-UP P.C. BOARD		
CAPACITORS		
CB01	EA47703510	ELECT 470 μ F 35V
CB02	EA10606310	ELECT 10 μ F 63V
CB03	EA47603510	ELECT 47 μ F 35V
CB05	EA47705010	ELECT 470 μ F 50V
CB06	EA47603510	ELECT 47 μ F 35V
CB07	DK18103310	CERAMIC 0.01 μ F +80% -20%
CB08	DK18103310	CERAMIC 0.01 μ F +80% -20%
▲CB09	DK17103840	CERAMIC 0.01 μ F \pm 20%
CB10	EA10606310	ELECT 10 μ F 63V
RESISTORS		
▲RB01	GG05100140	1/4W 10 Ω \pm 5%
▲RB03	GA05471010	1W 470 Ω \pm 5%
RB04	GD05101160	1/6W 100 Ω \pm 5%
RB05	GD05101160	1/6W 100 Ω \pm 5%
▲RB07	RC10225820	1/2W 2.2M Ω \pm 10% BK
RB08	GD05103160	1/6W 10K Ω \pm 5%
INTEGRATED CIRCUITS		
▲QB01	HC38905320	IC PQ05RR1 Voltage Regulator
TRANSISTOR		
QB02	HT420331E0	2SD2033 (E)
DIODES		
▲DB01	HD20002710	1D3 1A/200V
▲DB02	HD20002710	1D3 1A/200V
▲DB03	HD20002710	1D3 1A/200V
▲DB04	HD20002710	1D3 1A/200V
DB05	HD33301000	ZENER MTZJ33D
DB06	HD30821000	ZENER NTJ8.2C
▲DB07	HD20002710	1D3 1A/200V
▲DB08	HD20002710	1D3 1A/200V
MISCELLANEOUS		
▲FB01	FS10400850	FUSE S506 4A 250V IB
▲FB01	FS10800540	FUSE SM8 8A 125V BK
▲FB02	FS20250200	FUSE TR5 T2.5A 250V IB
▲FB03	FS20250200	FUSE TR5 T2.5A 250V IB
JB01	YJ08000580	JACK, FUSE CLIP [MOMS]
JB01	YJ08000590	JACK, FUSE CLIP IB (AVR80)
JB01	YJ08000170	JACK, FUSE CLIP BK
JB02	YJ08000590	JACK, FUSE CLIP IB [MOMS]
JB02	YJ08000580	JACK, FUSE CLIP IB (AVR80)
JB02	YJ08000170	JACK, FUSE CLIP BK
▲JB03	YJ04002080	JACK, AC OUTLET 2P IB
▲JB03	YJ04002040	JACK, AC OUTLET 2P BK
JB04	YP06006670	PLUG, 7P
▲JB05	YP04000760	PLUG, 2P
▲JB06	YP04000760	PLUG, 2P
JB07	YL01010240	TERMINAL, GND
JB09	YP06003830	PLUG, 3P
JB10	YP06006930	PLUG, 3P (AVR80MK II)
▲LB01	TS14823240	POWER TRANSF.
▲LB01	TS14823230	POWER TRANSF. BK
▲LB02	LY10240240	RELAY, VS24MB-NR

Ref. No.	Part. No.	Description
PE04-ELE.VOL P.C. BOARD		
CAPACITORS		
CE01	OA10601620	ELECT 10 μ F 16V
CE02	OA10601620	ELECT 10 μ F 16V
CE03	EJ10601610	ELECT 10 μ F 16V
CE04	EJ10601610	ELECT 10 μ F 16V
CE05	EJ10601610	ELECT 10 μ F 16V
CE06	EJ10601610	ELECT 10 μ F 16V
CE07	OA47505020	ELECT 4.7 μ F 50V
CE08	OA47505020	ELECT 4.7 μ F 50V
CE09	EJ47502510	ELECT 4.7 μ F 25V
CE10	EJ47502510	ELECT 4.7 μ F 25V
CE11	EJ47502510	ELECT 4.7 μ F 25V
CE12	EJ47502510	ELECT 4.7 μ F 25V
CE13	OA47505020	ELECT 4.7 μ F 50V
CE14	OA47505020	ELECT 4.7 μ F 50V
CE15	EJ47502510	ELECT 4.7 μ F 25V
CE16	EJ47502510	ELECT 4.7 μ F 25V
CE17	EJ47502510	ELECT 4.7 μ F 25V
CE18	EJ47502510	ELECT 4.7 μ F 25V
CE19	OA47505020	ELECT 4.7 μ F 50V
CE20	OA47505020	ELECT 4.7 μ F 50V
CE21	EJ47502510	ELECT 4.7 μ F 25V
CE22	EJ47502510	ELECT 4.7 μ F 25V
CE23	EJ47502510	ELECT 4.7 μ F 25V
CE24	EJ47502510	ELECT 4.7 μ F 25V
CE25	OA47505020	ELECT 4.7 μ F 50V
CE26	OA47505020	ELECT 4.7 μ F 50V
CE27	EJ47502510	ELECT 4.7 μ F 25V
CE28	EJ47502510	ELECT 4.7 μ F 25V
CE29	EJ47502510	ELECT 4.7 μ F 25V
CE30	EJ47502510	ELECT 4.7 μ F 25V
CE31	OA10601620	ELECT 10 μ F 16V
CE32	OA10601620	ELECT 10 μ F 16V
CE33	EJ47502510	ELECT 4.7 μ F 25V
CE34	EJ47502510	ELECT 4.7 μ F 25V
CE35	EJ47502510	ELECT 4.7 μ F 25V
CE36	EJ10601610	ELECT 10 μ F 16V
CE41	OA10601620	ELECT 10 μ F 16V
CE42	OA10601620	ELECT 10 μ F 16V
CE43	EJ10601610	ELECT 10 μ F 16V
CE44	EJ10601610	ELECT 10 μ F 16V
CE45	EJ10601610	ELECT 10 μ F 16V
CE46	EJ10601610	ELECT 10 μ F 16V
CV53	DF15182350	FILM 1800PF \pm 5%
CV54	DF15182350	FILM 1800PF \pm 5%
CV55	DF15182350	FILM 1800PF \pm 5%
CV59	DF15472350	FILM 4700PF \pm 5%
CV60	DF15472350	FILM 4700PF \pm 5%
CV61	DF15472350	FILM 4700PF \pm 5%
CV62	DF15104350	FILM 0.1 μ F \pm 5%
CV65	DK16271300	CERAMIC 270PF \pm 10%
CV66	DK16271300	CERAMIC 270PF \pm 10%
CV67	DK16271300	CERAMIC 270PF \pm 10%
CV68	DF15473310	FILM 0.047 μ F \pm 5%
CV71	EJ10601610	ELECT 10 μ F 16V
CV72	EJ10601610	ELECT 10 μ F 16V
CV73	EJ10601610	ELECT 10 μ F 16V
CV74	EJ22601610	ELECT 22 μ F 16V
CV75	DK16471300	CERAMIC 470PF \pm 10% IB
CV76	DK16471300	CERAMIC 470PF \pm 10% IB
CV77	DK16221300	CERAMIC 220PF \pm 10% IB
CV78	DK16221300	CERAMIC 220PF \pm 10% IB
CV79	DK16221300	CERAMIC 220PF \pm 10% IB
CV80	DK16102300	CERAMIC 1000PF \pm 10% IB
CV81	DK16221300	CERAMIC 220PF \pm 10% IB
CV82	DK16221300	CERAMIC 220PF \pm 10% IB
CV83	DK16221300	CERAMIC 220PF \pm 10% IB

Ref. No.	Part. No.	Description
CV84	DK16221300	CERAMIC 220PF $\pm 10\%$ 
CV85	DK16471300	CERAMIC 470PF $\pm 10\%$ 

RESISTORS

RE01	GD05104160	1/6W 100K Ω $\pm 5\%$
RE02	GD05104160	1/6W 100K Ω $\pm 5\%$
RE03	GD05104160	1/6W 100K Ω $\pm 5\%$
RE04	GD05104160	1/6W 100K Ω $\pm 5\%$
RE05	GD05104160	1/6W 100K Ω $\pm 5\%$
RE06	GD05104160	1/6W 100K Ω $\pm 5\%$
RE07	GD05332160	1/6W 3.3K Ω $\pm 5\%$
RE08	GD05332160	1/6W 3.3K Ω $\pm 5\%$
RE09	GD05332160	1/6W 3.3K Ω $\pm 5\%$
RE10	GD05332160	1/6W 3.3K Ω $\pm 5\%$
RE11	GD05332160	1/6W 3.3K Ω $\pm 5\%$
RE12	GD05332160	1/6W 3.3K Ω $\pm 5\%$
RE13	GD05222160	1/6W 2.2K Ω $\pm 5\%$
RE14	GD05222160	1/6W 2.2K Ω $\pm 5\%$
RE15	GD05222160	1/6W 2.2K Ω $\pm 5\%$
RE16	GD05222160	1/6W 2.2K Ω $\pm 5\%$
RE17	GD05222160	1/6W 2.2K Ω $\pm 5\%$
RE18	GD05222160	1/6W 2.2K Ω $\pm 5\%$
RE19	GD05104160	1/6W 100K Ω $\pm 5\%$
RE20	GD05104160	1/6W 100K Ω $\pm 5\%$
RE21	GD05104160	1/6W 100K Ω $\pm 5\%$
RE22	GD05104160	1/6W 100K Ω $\pm 5\%$
RE23	GD05104160	1/6W 100K Ω $\pm 5\%$
RE24	GD05104160	1/6W 100K Ω $\pm 5\%$
RE25	GD05331160	1/6W 330 Ω $\pm 5\%$
RE26	GD05331160	1/6W 330 Ω $\pm 5\%$
RE27	GD05331160	1/6W 330 Ω $\pm 5\%$
RE28	GD05331160	1/6W 330 Ω $\pm 5\%$
RE29	GD05331160	1/6W 330 Ω $\pm 5\%$
RE30	GD05331160	1/6W 330 Ω $\pm 5\%$
RE31	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE32	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE33	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE34	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE35	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE36	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE37	GD05334160	1/6W 330K Ω $\pm 5\%$
RE38	GD05334160	1/6W 330K Ω $\pm 5\%$
RE39	GD05334160	1/6W 330K Ω $\pm 5\%$
RE40	GD05334160	1/6W 330K Ω $\pm 5\%$
RE41	GD05334160	1/6W 330K Ω $\pm 5\%$
RE42	GD05334160	1/6W 330K Ω $\pm 5\%$
RE43	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE44	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE45	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE46	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE47	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE48	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE49	GD05104160	1/6W 100K Ω $\pm 5\%$
RE50	GD05104160	1/6W 100K Ω $\pm 5\%$
RE51	GD05104160	1/6W 100K Ω $\pm 5\%$
RE52	GD05104160	1/6W 100K Ω $\pm 5\%$
RE53	GD05104160	1/6W 100K Ω $\pm 5\%$
RE54	GD05104160	1/6W 100K Ω $\pm 5\%$
RE55	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE56	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE57	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE58	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE59	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE60	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE61	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE62	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE63	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE64	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE65	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RE66	GD05152160	1/6W 1.5K Ω $\pm 5\%$

Ref. No.	Part. No.	Description
RE73	GD05105160	1/6W 1M Ω $\pm 5\%$
RE74	GD05105160	1/6W 1M Ω $\pm 5\%$
RE75	GD05105160	1/6W 1M Ω $\pm 5\%$
RE76	GD05105160	1/6W 1M Ω $\pm 5\%$
RE79	GD05104160	1/6W 100K Ω $\pm 5\%$
RE80	GD05104160	1/6W 100K Ω $\pm 5\%$
RE81	GD05104160	1/6W 100K Ω $\pm 5\%$
RE82	GD05104160	1/6W 100K Ω $\pm 5\%$
RV53	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV54	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV55	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV59	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV60	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV61	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV62	GD05273160	1/6W 27K Ω $\pm 5\%$
RV65	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV66	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV67	GD05392160	1/6W 3.9K Ω $\pm 5\%$
RV68	GD05273160	1/6W 27K Ω $\pm 5\%$
RV69	GD05471160	1/6W 470 Ω $\pm 5\%$
RV70	GD05471160	1/6W 470 Ω $\pm 5\%$
RV71	GD05471160	1/6W 470 Ω $\pm 5\%$
RV72	GD05471160	1/6W 470 Ω $\pm 5\%$
RV73	GD05471160	1/6W 470 Ω $\pm 5\%$
RV74	GD05221160	1/6W 220 Ω $\pm 5\%$
RV75	GD05473160	1/6W 47K Ω $\pm 5\%$
RV76	GD05473160	1/6W 47K Ω $\pm 5\%$
RV77	GD05473160	1/6W 47K Ω $\pm 5\%$
RV78	GD05473160	1/6W 47K Ω $\pm 5\%$
RV79	GD05473160	1/6W 47K Ω $\pm 5\%$
RV80	GD05473160	1/6W 47K Ω $\pm 5\%$
RV81	GD05103160	1/6W 10K Ω $\pm 5\%$
RV82	GD05103160	1/6W 10K Ω $\pm 5\%$
RV83	GD05103160	1/6W 10K Ω $\pm 5\%$
RV84	GD05103160	1/6W 10K Ω $\pm 5\%$
RV85	GD05103160	1/6W 10K Ω $\pm 5\%$
RV86	GD05103160	1/6W 10K Ω $\pm 5\%$
RV87	GD05103160	1/6W 10K Ω $\pm 5\%$
RV88	GD05271160	1/6W 270 Ω $\pm 5\%$

INTEGRATED CIRCUITS

QE01	HC10008090	IC NJM4558DD Dual OP AMP
QE02	HC10008090	IC NJM4558DD Dual OP AMP
QE03	HC10008090	IC NJM4558DD Dual OP AMP
QE04	HC10304050	IC TC9213P Electric Volume (2ch)
QE05	HC10304050	IC TC9213P Electric Volume (2ch)
QE06	HC10304050	IC TC9213P Electric Volume (2ch)
QE07	HC10008090	IC NJM4558DD Dual OP AMP
QE08	HC10008090	IC NJM4558DD Dual OP AMP
QE09	HC10008090	IC NJM4558DD Dual OP AMP
QE10	HC10008090	IC NJM4558DD Dual OP AMP
QE11	HC10008090	IC NJM4558DD Dual OP AMP
QE12	HC10008090	IC NJM4558DD Dual OP AMP
QV58	HC10008090	IC NJM4558DD Dual OP AMP
QV59	HC10008090	IC NJM4558DD Dual OP AMP

TRANSISTORS

QV51	HT328782A0	2SC2878 (A, B)
QV52	HT328782A0	2SC2878 (A, B)
QV53	HT328782A0	2SC2878 (A, B)
QV54	HT328782A0	2SC2878 (A, B)
QV55	HT328782A0	2SC2878 (A, B)
QV56	HT328782A0	2SC2878 (A, B)
QV60	HT328782A0	2SC2878 (A, B)

Ref. No.	Part. No.	Description
COILS		
LV01	LC14733800	CHOKE 47 μ H IB
LV02	LC14733800	CHOKE 47 μ H IB
LV03	LC14733800	CHOKE 47 μ H IB
MISCELLANEOUS		
JV52	YT02060540	TERMINAL, 6P RCA PIN JACK IB
JV52	YT02060500	TERMINAL, 6P RCA PIN JACK BK
JV53	YT02041160	TERMINAL, 4P RCA PIN JACK IB
JV53	YT02041110	TERMINAL, 4P RCA PIN JACK BK
JV54	YT02011020	TERMINAL, 1P RCA PIN JACK IB
JV54	YT02010780	TERMINAL, 1P RCA PIN JACK BK
JV55	YJ06030600	JACK, 30P
JV56	YP06004570	PLUG, 13P
JV57	YP06006930	PLUG, 3P

PF04-TONE P.C. BOARD

CAPACITORS		
CF01	EJ10601610	ELECT 10 μ F 16V
CF02	EJ10601610	ELECT 10 μ F 16V
CF03	EJ10601610	ELECT 10 μ F 16V
CF04	OA47601620	ELECT 47 μ F 16V
CF05	DK16222300	CERAMIC 2200PF $\pm 10\%$
CF06	DK16222300	CERAMIC 2200PF $\pm 10\%$
CF07	DK16222300	CERAMIC 2200PF $\pm 10\%$
CF09	DD15101300	CERAMIC 100PF $\pm 5\%$
CF10	DD15101300	CERAMIC 100PF $\pm 5\%$
CF11	DD15101300	CERAMIC 100PF $\pm 5\%$
CF13	DF15153350	FILM 0.015 μ F $\pm 5\%$
CF14	DF15153350	FILM 0.015 μ F $\pm 5\%$
CF15	DF15153350	FILM 0.015 μ F $\pm 5\%$
CF16	DF15473310	FILM 0.047 μ F $\pm 5\%$
CF17	DF15153350	FILM 0.015 μ F $\pm 5\%$
CF18	DF15153350	FILM 0.015 μ F $\pm 5\%$
CF19	DF15153350	FILM 0.015 μ F $\pm 5\%$
CF20	DF15473310	FILM 0.047 μ F $\pm 5\%$
CF21	OA47601620	ELECT 47 μ F 16V
CF22	OA47601620	ELECT 47 μ F 16V
CF23	OA47601620	ELECT 47 μ F 16V
CF25	OA22601620	ELECT 22 μ F 16V
CF26	OA22601620	ELECT 22 μ F 16V
CF27	OA22601620	ELECT 22 μ F 16V
CF28	OA22601620	ELECT 22 μ F 16V
CF29	DD15470300	CERAMIC 47PF $\pm 5\%$
CF30	DD15470300	CERAMIC 47PF $\pm 5\%$
CF31	DD15470300	CERAMIC 47PF $\pm 5\%$
CF32	DD15470300	CERAMIC 47PF $\pm 5\%$
CF40	OA10701620	ELECT 100 μ F 16V
CF41	OA10701620	ELECT 100 μ F 16V
CF43	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$
CF44	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$
CF45	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$
CF46	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$
CF47	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$
CF48	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$

RESISTORS		
RF01	GD05473160	1/6W 47K Ω $\pm 5\%$
RF02	GD05473160	1/6W 47K Ω $\pm 5\%$
RF03	GD05473160	1/6W 47K Ω $\pm 5\%$
RF04	GD05473160	1/6W 47K Ω $\pm 5\%$
RF05	GD05470160	1/6W 47 Ω $\pm 5\%$
RF06	GD05470160	1/6W 47 Ω $\pm 5\%$
RF07	GD05470160	1/6W 47 Ω $\pm 5\%$
RF08	GD05470160	1/6W 47 Ω $\pm 5\%$
RF09	GD05103160	1/6W 10K Ω $\pm 5\%$
RF10	GD05103160	1/6W 10K Ω $\pm 5\%$
RF11	GD05103160	1/6W 10K Ω $\pm 5\%$

Ref. No.	Part. No.	Description
RF13	GD05103160	1/6W 10K Ω $\pm 5\%$
RF14	GD05103160	1/6W 10K Ω $\pm 5\%$
RF15	GD05103160	1/6W 10K Ω $\pm 5\%$
RF17	GD05103160	1/6W 10K Ω $\pm 5\%$
RF18	GD05103160	1/6W 10K Ω $\pm 5\%$
RF19	GD05103160	1/6W 10K Ω $\pm 5\%$
RF20	GD05103160	1/6W 10K Ω $\pm 5\%$
RF21	GD05223160	1/6W 22K Ω $\pm 5\%$
RF22	GD05223160	1/6W 22K Ω $\pm 5\%$
RF23	GD05223160	1/6W 22K Ω $\pm 5\%$
RF24	GD05223160	1/6W 22K Ω $\pm 5\%$
RF29	GD05223160	1/6W 22K Ω $\pm 5\%$
RF30	GD05223160	1/6W 22K Ω $\pm 5\%$
RF31	GD05223160	1/6W 22K Ω $\pm 5\%$
RF32	GD05223160	1/6W 22K Ω $\pm 5\%$
RF45	GD05102160	1/6W 1K Ω $\pm 5\%$
RF46	GD05102160	1/6W 1K Ω $\pm 5\%$
RF81	GD05473160	1/6W 47K Ω $\pm 5\%$
RF82	GD05473160	1/6W 47K Ω $\pm 5\%$
RF83	GD05473160	1/6W 47K Ω $\pm 5\%$
RF84	GD05473160	1/6W 47K Ω $\pm 5\%$

CONTROLS		
RF41	RG01040140	VARIABLE, 100K Ω (B) x 4
RF42	RG01040140	VARIABLE, 100K Ω (B) x 4
RF43	RK01040620	VARIABLE, 100K Ω (W)

INTEGRATED CIRCUITS		
QF01	HC10031090	IC NJM2058D Quad OP AMP
QF02	HC10008090	IC NJM4558DD Dual OP AMP
QF03	HC10008090	IC NJM4558DD Dual OP AMP

MISCELLANEOUS		
JF01	YP06006720	PLUG, 11P

PL04-VIDEO SELECTOR P.C. BOARD

CAPACITORS		
CL01	EJ22601010	ELECT 22 μ F 10V
CL02	EJ10601610	ELECT 10 μ F 16V
CL03	EJ22601010	ELECT 22 μ F 10V
CL04	EJ10601610	ELECT 10 μ F 16V
CL05	EJ22601010	ELECT 22 μ F 10V
CL06	EJ10601610	ELECT 10 μ F 16V
CL09	EJ22601010	ELECT 22 μ F 10V
CL10	EJ10601610	ELECT 10 μ F 16V
CL14	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL15	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL16	DK18103310	CERAMIC 0.01 μ F +80% -20%
CL17	DK18103310	CERAMIC 0.01 μ F +80% -20%
CL18	EA22700610	ELECT 220 μ F 6.3V
CL19	EA22700610	ELECT 220 μ F 6.3V
CL20	EJ22601010	ELECT 22 μ F 10V
CL21	EA10701010	ELECT 100 μ F 10V
CL22	DK18103310	CERAMIC 0.01 μ F +80% -20%
CL23	EJ22601010	ELECT 22 μ F 10V
CL31	DD38104010	CERAMIC 0.1 μ F +80% -20%
CX49	EJ47502510	ELECT 47 μ F 25V
CX50	EA47601010	ELECT 47 μ F 10V
CX51	EA22700610	ELECT 220 μ F 6.3V
CX52	DK18103310	CERAMIC 0.01 μ F +80% -20%
CX53	EA22700610	ELECT 220 μ F 6.3V
CX54	DK18103310	CERAMIC 0.01 μ F +80% -20%
CX55	DD15220300	CERAMIC 22PF $\pm 5\%$
CX56	DD15220300	CERAMIC 22PF $\pm 5\%$
CX57	DD15220300	CERAMIC 22PF $\pm 5\%$ IB
CX58	DD15220300	CERAMIC 22PF $\pm 5\%$ IB
CX59	EJ47405010	ELECT 0.47 μ F 50V

Ref. No.	Part. No.	Description
CX60	DD15560300	CERAMIC 56PF $\pm 5\%$
CX61	EJ10505010	ELECT 1 μ F 50V
CX62	DK16122300	CERAMIC 1200PF $\pm 10\%$
CX63	EJ10505010	ELECT 1 μ F 50V
CX64	DF15682350	FILM 0.0068 μ F $\pm 5\%$
CX65	DF15223350	FILM 0.022 μ F $\pm 5\%$
CX66	DD15470300	CERAMIC 47PF $\pm 5\%$
CX67	CT12000200	TRIMMING 20PF
CX69	EA47601010	ELECT 47 μ F 10V
CX70	EJ47502510	ELECT 4.7 μ F 25V
CX72	DK18103310	CERAMIC 0.01 μ F +80% -20%
CX73	EA22700610	ELECT 220 μ F 6.3V
CX74	EJ10505010	ELECT 1 μ F 50V
CX75	EJ22601010	ELECT 22 μ F 10V
CX76	EA10701010	ELECT 100 μ F 10V

RESISTORS

RL01	GD05820160	1/6W 82 Ω $\pm 5\%$
RL02	GD05100160	1/6W 10 Ω $\pm 5\%$
RL03	GD05820160	1/6W 82 Ω $\pm 5\%$
RL04	GD05100160	1/6W 10 Ω $\pm 5\%$
RL05	GD05820160	1/6W 82 Ω $\pm 5\%$
RL06	GD05100160	1/6W 10 Ω $\pm 5\%$
RL07	GD05750160	1/6W 75 Ω $\pm 5\%$
RL09	GD05820160	1/6W 82 Ω $\pm 5\%$
RL10	GD05100160	1/6W 10 Ω $\pm 5\%$
RL11	GD05750160	1/6W 75 Ω $\pm 5\%$
RL15	GD05750160	1/6W 75 Ω $\pm 5\%$
RL17	GD05104160	1/6W 100K Ω $\pm 5\%$
RL18	GD05104160	1/6W 100K Ω $\pm 5\%$
RL19	GD05472160	1/6W 4.7K Ω $\pm 5\%$
RX51	GD05333160	1/6W 33K Ω $\pm 5\%$
RX52	GD05221160	1/6W 220 Ω $\pm 5\%$
RX53	GD05105160	1/6W 1M Ω $\pm 5\%$
RX54	GD05105160	1/6W 1M Ω $\pm 5\%$
RX55	GD05103160	1/6W 10K Ω $\pm 5\%$
RX56	GD05103160	1/6W 10K Ω $\pm 5\%$
RX57	GD05103160	1/6W 10K Ω $\pm 5\%$
RX59	GD05221160	1/6W 220 Ω $\pm 5\%$
RX60	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RX61	GD05682160	1/6W 6.8K Ω $\pm 5\%$
RX62	GD05102160	1/6W 1K Ω $\pm 5\%$
RX65	GD05102160	1/6W 1K Ω $\pm 5\%$
RX66	GD05102160	1/6W 1K Ω $\pm 5\%$
RX67	GD05104160	1/6W 100K Ω $\pm 5\%$
RX68	GD05223160	1/6W 22K Ω $\pm 5\%$
RX69	GD05471160	1/6W 470 Ω $\pm 5\%$

INTEGRATED CIRCUITS

QL01	HC10275030	IC LC7824 Analogue Switch
QL02	HC10275030	IC LC7824 Analogue Switch
QL03	HC10046170	IC MC14576 Dual Video AMP
QL04	HC12233090	IC NJM2233BD Single Video AMP
QX60	HC10328030	IC LC74760-9004 OSD LSI
QX63	HC10141090	IC NJM2267D Dual Video AMP

TRANSISTORS

QX61	HT30001000	2SC536SP
QX62	BA20002000	DIGITAL DTC144ES/UN4213
QX64	HT30001000	2SC536SP

DIODES

DL01	HD20002000	1SS176
DL02	HD20002000	1SS176
DL03	HD20002000	1SS176
DL04	HD20002000	1SS176
DL05	HD20002000	1SS176
DL06	HD20002000	1SS176

Ref. No.	Part. No.	Description
DL07	HD20002000	1SS176
DL08	HD20002000	1SS176
DL09	HD20002000	1SS176
DL10	HD20002000	1SS176
DX61	HD20002000	1SS176

COILS

LX51	LC12233800	CHOKE, 22 μ H
LX52	LC15623800	CHOKE, 5.6 μ H

MISCELLANEOUS

JL01	YT02041130	TERMINAL, 4P RCA PIN JACK
JL02	YT02030370	TERMINAL, 3P RCA PIN JACK
JL03	YP06020640	PLUG, 14P
LX53	FM12223010	EMI FILTER
XX51	JX14001260	CRYSTAL, 14.31818MHz
XX52	JX17001260	CRYSTAL, 17.7MHz (IB)

PL54-S-VIDEO P.C. BOARD**CAPACITORS**

CL51	EJ10601610	ELECT 10 μ F 16V
CL52	EJ10601610	ELECT 10 μ F 16V
CL53	EJ10601610	ELECT 10 μ F 16V
CL54	EJ10601610	ELECT 10 μ F 16V
CL55	EJ10601610	ELECT 10 μ F 16V
CL56	EJ10601610	ELECT 10 μ F 16V
CL57	EJ10601610	ELECT 10 μ F 16V
CL58	EJ10601610	ELECT 10 μ F 16V
CL59	EJ10601610	ELECT 10 μ F 16V
CL60	EJ10601610	ELECT 10 μ F 16V
CL61	EJ10601610	ELECT 10 μ F 16V
CL62	EJ10601610	ELECT 10 μ F 16V
CL63	EJ10601610	ELECT 10 μ F 16V
CL64	EJ10601610	ELECT 10 μ F 16V
CL65	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL66	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL67	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL68	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL69	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL70	DD38104010	CERAMIC 0.1 μ F +80% -20%
CL71	EA10700610	ELECT 100 μ F 6.3V
CL72	DK18103310	CERAMIC 0.01 μ F +80% -20%
CL73	DK18103310	CERAMIC 0.01 μ F +80% -20%
CL74	EA10700610	ELECT 100 μ F 6.3V
CL75	EA10700610	ELECT 100 μ F 6.3V
CL76	DK18103310	CERAMIC 0.01 μ F +80% -20%
CL77	DK18103310	CERAMIC 0.01 μ F +80% -20%
CL78	EA10700610	ELECT 100 μ F 6.3V
CL79	DK18103310	CERAMIC 0.01 μ F +80% -20%

RESISTORS

RL51	GD05100160	1/6W 10 Ω $\pm 5\%$
RL52	GD05100160	1/6W 10 Ω $\pm 5\%$
RL53	GD05100160	1/6W 10 Ω $\pm 5\%$
RL54	GD05100160	1/6W 10 Ω $\pm 5\%$
RL55	GD05820160	1/6W 82 Ω $\pm 5\%$
RL56	GD05820160	1/6W 82 Ω $\pm 5\%$
RL57	GD05820160	1/6W 82 Ω $\pm 5\%$
RL58	GD05820160	1/6W 82 Ω $\pm 5\%$
RL59	GD05820160	1/6W 82 Ω $\pm 5\%$
RL60	GD05820160	1/6W 82 Ω $\pm 5\%$
RL61	GD05820160	1/6W 82 Ω $\pm 5\%$
RL62	GD05820160	1/6W 82 Ω $\pm 5\%$
RL63	GD05750160	1/6W 75 Ω $\pm 5\%$
RL64	GD05750160	1/6W 75 Ω $\pm 5\%$

Ref. No.	Part. No.	Description
RL65	GD05750160	1/6W 75 Ω ±5%
RL66	GD05750160	1/6W 75 Ω ±5%
RL67	GD05750160	1/6W 75 Ω ±5%
RL68	GD05750160	1/6W 75 Ω ±5%
RL69	GD05104160	1/6W 100K Ω ±5%
RL70	GD05104160	1/6W 100K Ω ±5%
RL71	GD05104160	1/6W 100K Ω ±5%
RL72	GD05104160	1/6W 100K Ω ±5%
RL73	GD05104160	1/6W 100K Ω ±5%
RL74	GD05104160	1/6W 100K Ω ±5%

INTEGRATED CIRCUITS

QL51	HC10275030	IC LC7824 Analogue Switch
QL52	HC10275030	IC LC7824 Analogue Switch
QL53	HC10275030	IC LC7824 Analogue Switch
QL54	HC10275030	IC LC7824 Analogue Switch
QL55	HC10046170	IC MC14576 Dual Video AMP
QL56	HC10046170	IC MC14576 Dual Video AMP
QL57	HC10046170	IC MC14576 Dual Video AMP

MISCELLANEOUS

JL51	YT02021320	TERMINAL, 2P
JL52	YT02021320	TERMINAL, 2P
JL53	YT02030350	TERMINAL, 3P
JL54	YP06020600	PLUG, 10P
JL55	YL01010140	TERMINAL GND

PL94-AUX IN P.C. BOARD**CAPACITORS**

CL91	EJ10601610	ELECT 10μF 16V
CL92	EJ22601610	ELECT 22μF 16V
CL93	EJ10601610	ELECT 10μF 16V
CL94	EJ10601610	ELECT 10μF 16V
CL95	DD38104010	CERAMIC 0.1μF +80% -20%
CL96	DD38104010	CERAMIC 0.1μF +80% -20%
CL97	DK16221300	CERAMIC 220PF ±10% IB [MOMS]
CL97	DK16102300	CERAMIC 1000PF ±10% IB (AVR80)
CL98	DK16221300	CERAMIC 220PF ±10% IB [MOMS]
CL98	DK16102300	CERAMIC 1000PF ±10% IB (AVR80)

RESISTORS

RL91	GD05100160	1/6W 10 Ω ±5%
RL92	GD05750160	1/6W 75 Ω ±5%
RL93	GD05750160	1/6W 75 Ω ±5%
RL94	GD05750160	1/6W 75 Ω ±5%
RL95	GD05100160	1/6W 10 Ω ±5%
RL96	GD05100160	1/6W 10 Ω ±5%
RL97	GD05102160	1/6W 1K Ω ±5% IB [MOMS]
RL98	GD05102160	1/6W 1K Ω ±5% IB [MOMS]
RU06	GD05332160	1/6W 3.3K Ω ±5%
RU08	GD05682160	1/6W 6.8K Ω ±5%
RU10	GD05103160	1/6W 10K Ω ±5%
RU38	GD05151160	1/6W 150 Ω ±5%

DIODES

DU46	HI10095320	L.E.D. LT3K44B (GRN)
DU47	HI10095320	L.E.D. LT3K44B (GRN)

MISCELLANEOUS

JL91	BY04040020	TERMINAL, AUX / S-VIDEO IN
JL92	YP06007260	PLUG, 8P
JU05	YJ06018040	JACK, 4P
SU07	SP01011280	PUSH SWITCH, TACT
SU09	SP01011280	PUSH SWITCH, TACT
SU11	SP01011280	PUSH SWITCH, TACT

Ref. No.	Part. No.	Description
WL01	YB00152110	CONNECTIVE CORD, 1P

PN54-SPK PROTECT P.C. BOARD (AVR80MK II)**CAPACITORS**

CN81	EJ10505010	ELECT 1μF 50V
CN82	EJ10505010	ELECT 1μF 50V
CN83	DD38104010	CERAMIC 0.1μF +80% -20%

RESISTORS

RN83	GD05473160	1/6W 47K Ω ±5%
RN84	GD05473160	1/6W 47K Ω ±5%
RN85	GD05104160	1/6W 100K Ω ±5%
RN86	GD05103160	1/6W 10K Ω ±5%
RN87	GD05473160	1/6W 47K Ω ±5%
RN88	GD05473160	1/6W 47K Ω ±5%

INTEGRATED CIRCUITS

QN84	HC10042050	IC TA7317P Over Load Protector
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TRANSISTORS

QN81	BA10007210	DIGITAL DTA114ES
QN82	HT322402A0	2SC2240 (GR, BL)
QN83	HT322402A0	2SC2240 (GR, BL)

DIODES

DN81	HD20002000	1SS176
DN82	HD20002000	1SS176

MISCELLANEOUS

JN81	YJ06019130	JACK, 13P
JN82	YP06007130	PLUG, 3P

PP04-SURROUND AMP P.C. BOARD**CAPACITORS**

CP01	DK16102300	CERAMIC 1000PF ±10%
CP02	DK16102300	CERAMIC 1000PF ±10%
CP03	EQ10606390	ELECT 10μF 63V
CP04	EQ10606390	ELECT 10μF 63V
CP05	EA10701610	ELECT 100μF 16V
CP06	EA10701610	ELECT 100μF 16V
CP07	DD11100300	CERAMIC 10PF ±0.5PF IB
CP07	DD10030300	CERAMIC 3PF ±0.25PF BK
CP08	DD11100300	CERAMIC 10PF ±0.5PF IB
CP08	DD10030300	CERAMIC 3PF ±0.25PF BK
CP09	EJ22405010	ELECT 0.22μF 50V
CP10	EJ22405010	ELECT 0.22μF 50V
CP11	EJ22405010	ELECT 0.22μF 50V
CP12	EJ22405010	ELECT 0.22μF 50V
CP13	EA10706310	ELECT 100μF 63V
CP14	EA10606310	ELECT 10μF 63V
CP15	EA10706310	ELECT 100μF 63V
CP16	EA10606310	ELECT 10μF 63V
CP17	EJ22601010	ELECT 22μF 10V
CP21	DD15470300	CERAMIC 47PF ±5% IB
CP22	DD15470300	CERAMIC 47PF ±5% IB

RESISTORS

RP01	GD05102160	1/6W 1K Ω ±5% IB
RP01	GD05471160	1/6W 470 Ω ±5% BK
RP02	GD05102160	1/6W 1K Ω ±5% IB
RP02	GD05471160	1/6W 470 Ω ±5% BK
RP03	GD05473160	1/6W 47K Ω ±5%
RP04	GD05473160	1/6W 47K Ω ±5%
RP05	GD05563160	1/6W 56K Ω ±5%
RP06	GD05563160	1/6W 56K Ω ±5%

Ref. No.	Part. No.	Description
RP07	GD05182160	1/6W 1.8K Ω $\pm 5\%$
RP08	GD05182160	1/6W 1.8K Ω $\pm 5\%$
RP09	GD05513160	1/6W 51K Ω $\pm 5\%$
RP10	GD05513160	1/6W 51K Ω $\pm 5\%$
▲RP11	GO10222030	3W 0.22 Ω $\pm 10\%$
▲RP12	GO10222030	3W 0.22 Ω $\pm 10\%$
▲RP13	GG05102160	1/6W 1K Ω $\pm 5\%$
▲RP14	GG05102160	1/6W 1K Ω $\pm 5\%$
RP15	GD05102160	1/6W 1K Ω $\pm 5\%$
RP16	GD05102160	1/6W 1K Ω $\pm 5\%$
RP17	GD05273160	1/6W 27K Ω $\pm 5\%$
RP18	GD05273160	1/6W 27K Ω $\pm 5\%$
RP19	GD05223160	1/6W 22K Ω $\pm 5\%$
RP20	GD05223160	1/6W 22K Ω $\pm 5\%$
▲RP21	GA05100010	1W 10 Ω $\pm 5\%$
▲RP22	GA05100010	1W 10 Ω $\pm 5\%$
RP23	GD05221160	1/6W 220 Ω $\pm 5\%$ IB
RP23	GD05181160	1/6W 180 Ω $\pm 5\%$ BK
RP24	GD05221160	1/6W 220 Ω $\pm 5\%$ IB
RP24	GD05181160	1/6W 180 Ω $\pm 5\%$ BK
▲RP25	GG05101160	1/6W 100 Ω $\pm 5\%$
▲RP26	GG05101160	1/6W 100 Ω $\pm 5\%$
RP27	GD05682160	1/6W 6.8K Ω $\pm 5\%$
RP28	GD05333160	1/6W 33K Ω $\pm 5\%$
RP29	GD05100160	1/6W 100 Ω $\pm 5\%$
RP99	GG05100140	1/4W 10 Ω $\pm 5\%$

INTEGRATED CIRCUITS		
▲QP01	HC10357030	IC STK401-140 AF Power AMP (2ch)

TRANSISTORS		
QP02	HT322402A0	2SC2240 (GR, BL)
QP03	HT322402A0	2SC2240 (GR, BL)
QP04	HT109702A0	2SA970 (GR, BL)

DIODES		
DP01	HD20027010	HSS81TD
DP02	HD20027010	HSS81TD

COILS		
LP01	ML08010030	AIR, SPK CHOCK
LP02	ML08010030	AIR, SPK CHOCK

MISCELLANEOUS		
JP01	YP06006930	PLUG, 3P

WP03	YB00170870	CONNECTIVE CORD, 1P IB
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PS04-AUDIO FUNCTION P.C. BOARD

CAPACITORS		
CS01	EJ10601610	ELECT 10 μ F 16V
CS02	EJ10601610	ELECT 10 μ F 16V
CS03	EJ10601610	ELECT 10 μ F 16V
CS04	EJ10601610	ELECT 10 μ F 16V
CS05	EJ10601610	ELECT 10 μ F 16V
CS06	EJ10601610	ELECT 10 μ F 16V
CS07	EJ47502510	ELECT 4.7 μ F 25V
CS08	EJ47502510	ELECT 4.7 μ F 25V
CS09	EA10701610	ELECT 100 μ F 16V
CS10	EA10701610	ELECT 100 μ F 16V
CS11	EJ47502510	ELECT 4.7 μ F 25V
CS12	EJ47502510	ELECT 4.7 μ F 25V
CS13	EA10701610	ELECT 100 μ F 16V
CS14	EA10701610	ELECT 100 μ F 16V
CS15	EJ47502510	ELECT 4.7 μ F 25V
CS16	EJ47502510	ELECT 4.7 μ F 25V
CS17	EJ10601610	ELECT 10 μ F 16V
CS18	EJ10601610	ELECT 10 μ F 16V

Ref. No.	Part. No.	Description
CS19	DD38104010	CERAMIC 0.1 μ F +80% -20%
CS21	DD38104010	CERAMIC 0.1 μ F +80% -20%
CS22	DD38104010	CERAMIC 0.1 μ F +80% -20%
CS23	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CS24	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CS25	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CS26	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CS27	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS28	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS29	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CS30	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CS31	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS32	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS33	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS34	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS35	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS36	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS37	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CS38	DK16221300	CERAMIC 220PF $\pm 10\%$ IB

RESISTORS

RS01	GD05473160	1/6W 47K Ω $\pm 5\%$
RS02	GD05473160	1/6W 47K Ω $\pm 5\%$
RS03	GD05473160	1/6W 47K Ω $\pm 5\%$
RS04	GD05473160	1/6W 47K Ω $\pm 5\%$
RS05	GD05473160	1/6W 47K Ω $\pm 5\%$
RS06	GD05473160	1/6W 47K Ω $\pm 5\%$
RS07	GD05102160	1/6W 1K Ω $\pm 5\%$
RS08	GD05102160	1/6W 1K Ω $\pm 5\%$
RS09	GD05102160	1/6W 1K Ω $\pm 5\%$
RS10	GD05102160	1/6W 1K Ω $\pm 5\%$
RS11	GD05102160	1/6W 1K Ω $\pm 5\%$
RS12	GD05102160	1/6W 1K Ω $\pm 5\%$
RS13	GD05473160	1/6W 47K Ω $\pm 5\%$
RS14	GD05473160	1/6W 47K Ω $\pm 5\%$
RS15	GD05473160	1/6W 47K Ω $\pm 5\%$
RS16	GD05473160	1/6W 47K Ω $\pm 5\%$
RS17	GD05473160	1/6W 47K Ω $\pm 5\%$
RS18	GD05473160	1/6W 47K Ω $\pm 5\%$
RS19	GD05473160	1/6W 47K Ω $\pm 5\%$
RS20	GD05473160	1/6W 47K Ω $\pm 5\%$
RS21	GD05102160	1/6W 1K Ω $\pm 5\%$
RS22	GD05102160	1/6W 1K Ω $\pm 5\%$
RS23	GD05473160	1/6W 47K Ω $\pm 5\%$
RS24	GD05473160	1/6W 47K Ω $\pm 5\%$
RS25	GD05473160	1/6W 47K Ω $\pm 5\%$
RS26	GD05473160	1/6W 47K Ω $\pm 5\%$
RS27	GD05102160	1/6W 1K Ω $\pm 5\%$
RS28	GD05102160	1/6W 1K Ω $\pm 5\%$
RS29	GD05104160	1/6W 100K Ω $\pm 5\%$
RS30	GD05104160	1/6W 100K Ω $\pm 5\%$
RS31	GD05104160	1/6W 100K Ω $\pm 5\%$
RS32	GD05104160	1/6W 100K Ω $\pm 5\%$
RS33	GD05104160	1/6W 100K Ω $\pm 5\%$
RS34	GD05104160	1/6W 100K Ω $\pm 5\%$
RS37	GD05182160	1/6W 1.8K Ω $\pm 5\%$
RS38	GD05182160	1/6W 1.8K Ω $\pm 5\%$
RS39	GD05103160	1/6W 10K Ω $\pm 5\%$
RS40	GD05103160	1/6W 10K Ω $\pm 5\%$

INTEGRATED CIRCUITS

QS01	HC10008090	IC NJM4558DD Dual OP AMP
QS02	HC10008090	IC NJM4558DD Dual OP AMP
QS03	HC10008090	IC NJM4558DD Dual OP AMP
QS05	HC10008090	IC NJM4558DD Dual OP AMP
QS11	HC10308030	IC LC78211 Analogue Switch
QS12	HC10310030	IC LC78213 Analogue Switch
QS13	HC10008090	IC NJM4558DD Dual OP AMP

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
TRANSISTORS			CS95	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
QS07	HT421442A0	2SD2144S (U, V)	CS96	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
QS08	HT421442A0	2SD2144S (U, V)	RESISTORS		
QS09	BA20001000	DIGITAL DTC114ES	RG51	GD05473160	1/6W 47K Ω $\pm 5\%$
QS10	BA10001000	DIGITAL DTA114ES	RG52	GD05473160	1/6W 47K Ω $\pm 5\%$
MISCELLANEOUS			RG53	GD05471160	1/6W 470 Ω $\pm 5\%$
JS01	YT02060460	TERMINAL, 6P RCA PIN JACK	RG54	GD05471160	1/6W 470 Ω $\pm 5\%$
JS02	YT02040940	TERMINAL, 4P RCA PIN JACK	RG55	GD05473160	1/6W 47K Ω $\pm 5\%$
JS03	YJ06030570	JACK, 16P	RG56	GD05473160	1/6W 47K Ω $\pm 5\%$
JS04	YL01010140	TERMINAL, GND	RG57	GD05104160	1/6W 100K Ω $\pm 5\%$
PS54-V-AUDIO FUNCTION P.C. BOARD			RG58	GD05104160	1/6W 100K Ω $\pm 5\%$
CAPACITORS			RG59	GD05334160	1/6W 330K Ω $\pm 5\%$
CG51	EJ47502510	ELECT 4.7 μ F 25V	RG60	GD05334160	1/6W 330K Ω $\pm 5\%$
CG52	EJ47502510	ELECT 4.7 μ F 25V	RG61	GD05152160	1/6W 1.5K Ω $\pm 5\%$
CG55	EJ47502510	ELECT 4.7 μ F 25V	RG62	GD05152160	1/6W 1.5K Ω $\pm 5\%$
CG56	EJ47502510	ELECT 4.7 μ F 25V	RG63	GD05472160	1/6W 4.7K Ω $\pm 5\%$
CG57	EJ47502510	ELECT 4.7 μ F 25V	RG64	GD05472160	1/6W 4.7K Ω $\pm 5\%$
CG58	EJ47502510	ELECT 4.7 μ F 25V	RG65	GD05331160	1/6W 330 Ω $\pm 5\%$
CG59	EJ47502510	ELECT 4.7 μ F 25V	RG66	GD05331160	1/6W 330 Ω $\pm 5\%$
CG60	EJ47502510	ELECT 4.7 μ F 25V	RG67	GD05473160	1/6W 47K Ω $\pm 5\%$
CG61	DK16101300	CERAMIC 100PF $\pm 10\%$ IB	RG68	GD05473160	1/6W 47K Ω $\pm 5\%$
CG62	DK16101300	CERAMIC 100PF $\pm 10\%$ IB	RG69	GD05103160	1/6W 10K Ω $\pm 5\%$
CG63	EJ47502510	ELECT 4.7 μ F 25V	RG70	GD05103160	1/6W 10K Ω $\pm 5\%$
CG64	EJ47502510	ELECT 4.7 μ F 25V	RG71	GD05471160	1/6W 470 Ω $\pm 5\%$
CS51	EJ10601610	ELECT 10 μ F 16V	RG72	GD05471160	1/6W 470 Ω $\pm 5\%$
CS52	EJ10601610	ELECT 10 μ F 16V	RS51	GD05473160	1/6W 47K Ω $\pm 5\%$
CS53	EJ10601610	ELECT 10 μ F 16V	RS52	GD05473160	1/6W 47K Ω $\pm 5\%$
CS54	EJ10601610	ELECT 10 μ F 16V	RS53	GD05473160	1/6W 47K Ω $\pm 5\%$
CS55	EJ10601610	ELECT 10 μ F 16V	RS54	GD05473160	1/6W 47K Ω $\pm 5\%$
CS56	EJ10601610	ELECT 10 μ F 16V	RS55	GD05473160	1/6W 47K Ω $\pm 5\%$
CS57	EJ10601610	ELECT 10 μ F 16V	RS56	GD05473160	1/6W 47K Ω $\pm 5\%$
CS58	EJ10601610	ELECT 10 μ F 16V	RS57	GD05473160	1/6W 47K Ω $\pm 5\%$
CS59	EJ47502510	ELECT 4.7 μ F 25V	RS58	GD05473160	1/6W 47K Ω $\pm 5\%$
CS60	EJ47502510	ELECT 4.7 μ F 25V	RS59	GD05102160	1/6W 1K Ω $\pm 5\%$
CS61	DD38104010	CERAMIC 0.1 μ F $\pm 80\%$ -20%	RS60	GD05102160	1/6W 1K Ω $\pm 5\%$
CS62	EA10701610	ELECT 100 μ F 16V	RS61	GD05102160	1/6W 1K Ω $\pm 5\%$
CS63	EA10701610	ELECT 100 μ F 16V	RS62	GD05102160	1/6W 1K Ω $\pm 5\%$
CS65	EA10701610	ELECT 100 μ F 16V	RS63	GD05102160	1/6W 1K Ω $\pm 5\%$
CS66	EA10701610	ELECT 100 μ F 16V	RS64	GD05102160	1/6W 1K Ω $\pm 5\%$
CS68	DD38104010	CERAMIC 0.1 μ F $\pm 80\%$ -20%	RS65	GD05102160	1/6W 1K Ω $\pm 5\%$
CS69	DD38104010	CERAMIC 0.1 μ F $\pm 80\%$ -20%	RS66	GD05102160	1/6W 1K Ω $\pm 5\%$
CS70	DD38104010	CERAMIC 0.1 μ F $\pm 80\%$ -20%	RS67	GD05473160	1/6W 47K Ω $\pm 5\%$
CS71	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS68	GD05473160	1/6W 47K Ω $\pm 5\%$
CS72	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS69	GD05473160	1/6W 47K Ω $\pm 5\%$
CS73	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS70	GD05473160	1/6W 47K Ω $\pm 5\%$
CS74	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS71	GD05473160	1/6W 47K Ω $\pm 5\%$
CS75	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS72	GD05473160	1/6W 47K Ω $\pm 5\%$
CS76	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS73	GD05473160	1/6W 47K Ω $\pm 5\%$
CS77	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS74	GD05473160	1/6W 47K Ω $\pm 5\%$
CS78	DK16151300	CERAMIC 150PF $\pm 10\%$ IB	RS75	GD05104160	1/6W 100K Ω $\pm 5\%$
CS79	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS76	GD05104160	1/6W 100K Ω $\pm 5\%$
CS80	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS77	GD05102160	1/6W 1K Ω $\pm 5\%$
CS81	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS78	GD05102160	1/6W 1K Ω $\pm 5\%$
CS82	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS79	GD05473160	1/6W 47K Ω $\pm 5\%$
CS83	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS80	GD05473160	1/6W 47K Ω $\pm 5\%$
CS84	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS81	GD05473160	1/6W 47K Ω $\pm 5\%$
CS85	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS82	GD05473160	1/6W 47K Ω $\pm 5\%$
CS86	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS83	GD05102160	1/6W 1K Ω $\pm 5\%$
CS87	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS84	GD05102160	1/6W 1K Ω $\pm 5\%$
CS88	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS85	GD05104160	1/6W 100K Ω $\pm 5\%$
CS89	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS86	GD05104160	1/6W 100K Ω $\pm 5\%$
CS90	DK16221300	CERAMIC 220PF $\pm 10\%$ IB	RS93	GD05473160	1/6W 47K Ω $\pm 5\%$
CS93	EJ10601610	ELECT 10 μ F 16V	RS94	GD05473160	1/6W 47K Ω $\pm 5\%$
CS94	EJ10601610	ELECT 10 μ F 16V	INTEGRATED CIRCUITS		
			QG55	HC10008090	IC NJM4558DD Dual OP AMP
			QG56	HC10008090	IC NJM4558DD Dual OP AMP
			QG57	HC10304050	IC TC9213P
			Electric Volume (2ch)		

Ref. No.	Part. No.	Description
QS51	HC10008090	IC NJM4558DD Dual OP AMP
QS52	HC10008090	IC NJM4558DD Dual OP AMP
QS53	HC10008090	IC NJM4558DD Dual OP AMP
QS54	HC10008090	IC NJM4558DD Dual OP AMP
QS55	HC10008090	IC NJM4558DD Dual OP AMP
QS56	HC10308030	IC LC78211 Analogue Switch
QS57	HC10309030	IC LC78212 Analogue Switch
QS91	HC10008090	IC NJM4558DD Dual OP AMP
TRANSISTORS		
QG51	HT421442A0	2SD2144S, U, V
QG52	HT421442A0	2SD2144S, U, V
QG59	HT421442A0	2SD2144S, U, V
QG60	HT421442A0	2SD2144S, U, V
QS59	HT421442A0	2SD2144S, U, V
QS60	HT421442A0	2SD2144S, U, V
QS61	BA10001000	DIGITAL DTA114ES
QS62	BA20001000	DIGITAL DTC114ES
MISCELLANEOUS		
JS51	YT02060460	TERMINAL, 6P RCA PIN JACK
JS52	YT02080110	TERMINAL, 8P RCA PIN JACK
JS54	YJ06030580	JACK, 20P

PU04-FRONT P.C. BOARD

CAPACITORS		
CU01	DA17223110	CERAMIC 0.022μF ±20%
CU02	EJ47601010	ELECT 47μF 10V
CU03	EJ22700610	ELECT 220μF 6.3V
CU04	DA17223110	CERAMIC 0.022μF ±20%
CU05	DA17104110	CERAMIC 0.1μF ±20%
CU07	EX22300530	BIG ELECT 0.22F 5.5V
CU10	DA17223110	CERAMIC 0.022μF ±20%
CU11	DA17223110	CERAMIC 0.022μF ±20%
CU12	DA17223110	CERAMIC 0.022μF ±20%
CU13	DD38104010	CERAMIC 0.1μF +80% -20%
CU14	DK18103310	CERAMIC 0.01μF +80% -20%
CU15	DK18103310	CERAMIC 0.01μF +80% -20%
RESISTORS		
RU01	GD05152160	1/6W 1.5K Ω ±5%
RU02	GD05152160	1/6W 1.5K Ω ±5%
RU03	GD05222160	1/6W 2.2K Ω ±5%
RU04	GD05222160	1/6W 2.2K Ω ±5%
RU05	GD05332160	1/6W 3.3K Ω ±5%
RU07	GD05682160	1/6W 6.8K Ω ±5%
RU09	GD05103160	1/6W 10K Ω ±5%
RU11	GD05473160	1/6W 47K Ω ±5%
RU14	GD05103160	1/6W 10K Ω ±5%
RU15	GD05103160	1/6W 10K Ω ±5%
RU16	GD05103160	1/6W 10K Ω ±5%
RU17	GD05473160	1/6W 47K Ω ±5%
RU18	GD05183160	1/6W 18K Ω ±5%
RU19	GD05103160	1/6W 10K Ω ±5%
RU20	GD05473160	1/6W 47K Ω ±5%
RU22	GD05100160	1/6W 10 Ω ±5%
RU23	GD05101160	1/6W 100 Ω ±5%
RU24	GD05103160	1/6W 10K Ω ±5%
RU25	GD05221160	1/6W 220 Ω ±5%
RU26	GD05103160	1/6W 10K Ω ±5%
RU27	GD05103160	1/6W 10K Ω ±5%
RU28	GD05331160	1/6W 330 Ω ±5%
RU29	GD05103160	1/6W 10K Ω ±5%
RU30	GD05103160	1/6W 10K Ω ±5%
RU31	GD05473160	1/6W 47K Ω ±5% (AVR80MK II)
RU32	GD05103160	1/6W 10K Ω ±5% (AVR80MK II)
RU33	GD05473160	1/6W 47K Ω ±5% (AVR80MK II)

Ref. No.	Part. No.	Description
RU34	GD05103160	1/6W 10K Ω ±5% (AVR80MK II)
RU36	GD05151160	1/6W 150 Ω ±5%
RU37	GD05151160	1/6W 150 Ω ±5%
RU39	GD05471160	1/6W 470 Ω ±5%
RU40	GD05473160	1/6W 47K Ω ±5%
RU41	GD05472160	1/6W 4.7K Ω ±5%
RU42	GD05472160	1/6W 4.7K Ω ±5%
RU43	GD05182160	1/6W 1.8K Ω ±5%
RU44	GD05182160	1/6W 1.8K Ω ±5%
RU45	GD05473160	1/6W 47K Ω ±5%
RU46	GD05103160	1/6W 10K Ω ±5%
INTEGRATED CIRCUITS		
QU01	HU260JT120	MICROPROCESSOR TMP87CP71F
QU18	HC712500B0	IC 74HC125 Quad Bus Buffer Gates
TRANSISTORS		
QU02	BA10007210	DIGITAL DTA114ES
QU03	HT30001000	2SC536SP
QU04	BA20012210	DIGITAL DTC144ES
QU05	BA20010210	DIGITAL DTC114ES
QU07	HT30001000	2SC536SP
QU08	BA20012210	DIGITAL DTC144ES
QU09	BA20012210	DIGITAL DTC144ES
QU10	BA10010210	DIGITAL DTA144ES
QU11	BA10003210	DIGITAL DTA114TS
QU12	BA10007210	DIGITAL DTA114ES
QU14	BA10010210	DIGITAL DTA144ES
QU15	BA20012210	DIGITAL DTC144ES
QU16	HW10001210	PHOTO UNIT, IR RECIVER
QU17	BA10007210	DIGITAL DTA114ES
QU19	HT30001000	2SC536SP (AVR80MK II)
QU20	HT30001000	2SC536SP (AVR80MK II)
QU21	HT10001000	2SA608SP (AVR80MK II)
DIODES		
DU01	HD20029210	1SS132 (AVR80MK II)
DU01	HD20002000	1SS176 (AVR80)
DU02	HD20029210	1SS132 (AVR80MK II)
DU02	HD20002000	1SS176 (AVR80)
DU03	HD20029210	1SS132 (AVR80MK II)
DU03	HD20002000	1SS176 (AVR80)
DU04	HD20029210	1SS132 (AVR80MK II)
DU04	HD20002000	1SS176 (AVR80)
DU05	HD20002000	1SS176
DU06	HD20002000	1SS176
DU07	HD20002000	1SS176
DU08	HD20002000	1SS176
DU09	HD20002000	1SS176
DU10	HD20002000	1SS176
DU14	HD20029210	1SS132
DU17	HD20029210	1SS132
DU19	HD20002000	1SS176
DU20	HD20002000	1SS176
DU21	HD20002000	1SS176
DU22	HI10099320	L.E.D. GL3ED8
DU23	HD20002000	1SS176
DU24	HD20002000	1SS176
DU25	HD20002000	1SS176
DU26	HD20002000	1SS176
DU27	HD20002000	1SS176
DU28	HD20002000	1SS176
DU29	HI10062320	L.E.D. LT3D8B (RED)
DU30	HI10095320	L.E.D. LT3K44B (GRN)
DU31	HI10095320	L.E.D. LT3K44B (GRN)
DU32	HI10095320	L.E.D. LT3K44B (GRN)
DU33	HI10095320	L.E.D. LT3K44B (GRN)
DU34	HI10095320	L.E.D. LT3K44B (GRN)
DU35	HI10095320	L.E.D. LT3K44B (GRN)

Ref. No.	Part. No.	Description
DU36	HI10095320	L.E.D. LT3K44B (GRN)
DU37	HI10095320	L.E.D. LT3K44B (GRN)
DU38	HI10095320	L.E.D. LT3K44B (GRN)
DU39	HI10095320	L.E.D. LT3K44B (GRN)
DU40	HI10095320	L.E.D. LT3K44B (GRN)
DU41	HI10095320	L.E.D. LT3K44B (GRN)
DU42	HI10095320	L.E.D. LT3K44B (GRN)
DU43	HI10095320	L.E.D. LT3K44B (GRN)
DU44	HI10095320	L.E.D. LT3K44B (GRN)
DU45	HI10095320	L.E.D. LT3K44B (GRN)
DU48	HD20002000	1SS176
DU49	HD20002000	1SS176
DU50	HD20002000	1SS176
DU51	HD20002000	1SS176 (AVR80MKII)
DU52	HD20002000	1SS176 (AVR80MKII)

MISCELLANEOUS

JU01	YJ07011240	JACK, 31P
JU02	YP06007170	PLUG, 7P
JU03	YJ06030640	JACK, 4P
JU04	YP06020550	PLUG, 4P
JU06	YP06006930	PLUG, 3P (AVR80MKII)
SU01	SP01011280	PUSH SWITCH, TACT
SU02	SP01011280	PUSH SWITCH, TACT IB
SU03	SP01011280	PUSH SWITCH, TACT
SU04	SP01011280	PUSH SWITCH, TACT IB
SU05	SP01011280	PUSH SWITCH, TACT
SU06	SP01011280	PUSH SWITCH, TACT IB
SU08	SP01011280	PUSH SWITCH, TACT
SU10	SP01011280	PUSH SWITCH, TACT
SU12	SP01011280	PUSH SWITCH, TACT (AVR80)
SU13	SP01011280	PUSH SWITCH, TACT
SU14	SP01011280	PUSH SWITCH, TACT
SU15	SP01011280	PUSH SWITCH, TACT
SU16	SP01011280	PUSH SWITCH, TACT
SU17	SP01011280	PUSH SWITCH, TACT
SU18	SP01011280	PUSH SWITCH, TACT
SU19	SP01011280	PUSH SWITCH, TACT
SU21	SP01011280	PUSH SWITCH, TACT
SU24	SP01011280	PUSH SWITCH, TACT
SU25	SP01011280	PUSH SWITCH, TACT
SU26	SP01011280	PUSH SWITCH, TACT
SU27	SP01011280	PUSH SWITCH, TACT
SU28	SP01011280	PUSH SWITCH, TACT
SU29	SP01011280	PUSH SWITCH, TACT
SU31	SP01011280	PUSH SWITCH, TACT
SU32	SP01011280	PUSH SWITCH, TACT
SU33	SP01011280	PUSH SWITCH, TACT
SU34	SP01011280	PUSH SWITCH, TACT
VU01	HQ31206060	DISPLAY UNIT, FIP12DM8R
XU01	FQ08004010	CERAMIC RESONATOR CST8,0MHz

PUS4-MASTER VOL P.C. BOARD

CAPACITORS		
CU51	DA16101110	CERAMIC 100PF $\pm 10\%$
CU52	DA16101110	CERAMIC 100PF $\pm 10\%$

RESISTORS		
RU51	GD05104160	1/6W 100K Ω $\pm 5\%$
RU52	GD05104160	1/6W 100K Ω $\pm 5\%$
RU53	GD05224160	1/6W 220K Ω $\pm 5\%$
RU54	GD05224160	1/6W 220K Ω $\pm 5\%$
RU55	GG05010140	1/6W 1 Ω $\pm 5\%$
RU57	GD05103160	1/6W 10K Ω $\pm 5\%$ (AVR80)
RU58	GD05103160	1/6W 10K Ω $\pm 5\%$ (AVR80)

Ref. No.	Part. No.	Description
TRANSISTORS		
QU51	HT30001000	2SC536SP
QU52	HT30001000	2SC536SP
QU53	HT30001000	2SC536SP (AVR80)
QU54	HT30001000	2SC536SP (AVR80)

MISCELLANEOUS		
JU51	YP06020740	PLUG, 4P
SU55	SR02010040	ROTARY SWITCH, MASTER VOL.

PU94-POWER SW P.C. BOARD (AVR80MK II)

MISCELLANEOUS		
JU91	YP06006930	PLUG, 3P
JU92	YP06006930	PLUG, 3P
SU91	SP02011570	PUSH SWITCH, POWER

PV04-DIRECT IN P.C. BOARD

CAPACITORS		
CT04	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CT05	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CV01	EJ10601610	ELECT 10 μ F 16V
CV02	EJ10601610	ELECT 10 μ F 16V
CV03	EJ10601610	ELECT 10 μ F 16V
CV04	EJ10601610	ELECT 10 μ F 16V
CV05	EJ10601610	ELECT 10 μ F 16V
CV06	EJ10601610	ELECT 10 μ F 16V
CV07	DD38104010	CERAMIC 0.1 μ F +80% -20%
CV08	DD38104010	CERAMIC 0.1 μ F +80% -20%
CV09	DF15104350	FILM 0.1 μ F $\pm 5\%$
CV10	DF15104350	FILM 0.1 μ F $\pm 5\%$
CV11	DF15104350	FILM 0.1 μ F $\pm 5\%$
CV12	DF15104350	FILM 0.1 μ F $\pm 5\%$
CV13	EJ10601610	ELECT 10 μ F 16V
CV14	EJ10601610	ELECT 10 μ F 16V
CV15	DK16101300	CERAMIC 100PF $\pm 10\%$ IB
CV16	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CV17	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CV18	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CV19	EJ10601610	ELECT 10 μ F 16V
CV20	EJ10601610	ELECT 10 μ F 16V
CV21	EJ10601610	ELECT 10 μ F 16V
CV22	EJ10601610	ELECT 10 μ F 16V
CV23	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CV24	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CV25	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CV26	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CV27	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CV28	DK16151300	CERAMIC 150PF $\pm 10\%$ IB
CV31	EJ10601610	ELECT 10 μ F 16V
CV32	EJ10601610	ELECT 10 μ F 16V
CV33	EJ10601610	ELECT 10 μ F 16V
CV34	EJ10601610	ELECT 10 μ F 16V
CV35	EJ10601610	ELECT 10 μ F 16V
CV36	EJ10601610	ELECT 10 μ F 16V
CV37	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$
CV38	EJ10700610	ELECT 100 μ F 6.3V
CV39	DD38104010	CERAMIC 0.1 μ F +80% -20%
CV40	DA17223110	CERAMIC 0.022 μ F $\pm 20\%$
CV41	DD38104010	CERAMIC 0.1 μ F +80% -20%
CV42	DD38104010	CERAMIC 0.1 μ F +80% -20%
CV43	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CV44	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CV45	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CV46	DK16221300	CERAMIC 220PF $\pm 10\%$ IB

Ref. No.	Part. No.	Description
CV47	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CV48	DK16221300	CERAMIC 220PF $\pm 10\%$ IB
CV50	DK16101300	CERAMIC 100PF $\pm 10\%$ IB
CV97	DK16101300	CERAMIC 100PF $\pm 10\%$ IB
CV99	DK18103310	CERAMIC 0.01 μ F +80% -20%

RESISTORS

RT01	GD05271160	1/6W 270 Ω $\pm 5\%$
RT02	GD05102160	1/6W 1K Ω $\pm 5\%$
RT05	GD05271160	1/6W 270 Ω $\pm 5\%$
RT07	GD05222160	1/6W 2.2K Ω $\pm 5\%$
RT20	GD05220160	1/6W 22 Ω $\pm 5\%$
RV01	GD05102160	1/6W 1K Ω $\pm 5\%$
RV02	GD05102160	1/6W 1K Ω $\pm 5\%$
RV03	GD05102160	1/6W 1K Ω $\pm 5\%$
RV04	GD05102160	1/6W 1K Ω $\pm 5\%$
RV05	GD05102160	1/6W 1K Ω $\pm 5\%$
RV06	GD05102160	1/6W 1K Ω $\pm 5\%$
RV07	GD05104160	1/6W 100K Ω $\pm 5\%$
RV08	GD05104160	1/6W 100K Ω $\pm 5\%$
RV09	GD05104160	1/6W 100K Ω $\pm 5\%$
RV10	GD05104160	1/6W 100K Ω $\pm 5\%$
RV11	GD05104160	1/6W 100K Ω $\pm 5\%$
RV12	GD05104160	1/6W 100K Ω $\pm 5\%$
RV13	GD05104160	1/6W 100K Ω $\pm 5\%$
RV14	GD05104160	1/6W 100K Ω $\pm 5\%$
RV15	GD05104160	1/6W 100K Ω $\pm 5\%$
RV16	GD05104160	1/6W 100K Ω $\pm 5\%$
RV17	GD05104160	1/6W 100K Ω $\pm 5\%$
RV18	GD05104160	1/6W 100K Ω $\pm 5\%$
RV21	GD05104160	1/6W 100K Ω $\pm 5\%$
RV22	GD05104160	1/6W 100K Ω $\pm 5\%$
RV23	GD05153160	1/6W 15K Ω $\pm 5\%$
RV24	GD05153160	1/6W 15K Ω $\pm 5\%$
RV25	GD05153160	1/6W 15K Ω $\pm 5\%$
RV26	GD05153160	1/6W 15K Ω $\pm 5\%$
RV27	GD05223160	1/6W 22K Ω $\pm 5\%$
RV28	GD05223160	1/6W 22K Ω $\pm 5\%$
RV29	GD05473160	1/6W 47K Ω $\pm 5\%$
RV30	GD05473160	1/6W 47K Ω $\pm 5\%$
RV33	GD05103160	1/6W 10K Ω $\pm 5\%$
RV34	GD05103160	1/6W 10K Ω $\pm 5\%$
RV35	GD05103160	1/6W 10K Ω $\pm 5\%$
RV36	GD05103160	1/6W 10K Ω $\pm 5\%$
RV37	GD05562160	1/6W 5.6K Ω $\pm 5\%$
RV38	GD05562160	1/6W 5.6K Ω $\pm 5\%$
RV39	GD05104160	1/6W 100K Ω $\pm 5\%$
RV40	GD05104160	1/6W 100K Ω $\pm 5\%$
RV41	GD05473160	1/6W 47K Ω $\pm 5\%$
RV42	GD05473160	1/6W 47K Ω $\pm 5\%$
RV43	GD05473160	1/6W 47K Ω $\pm 5\%$
RV44	GD05473160	1/6W 47K Ω $\pm 5\%$
RV45	GD05473160	1/6W 47K Ω $\pm 5\%$
RV46	GD05473160	1/6W 47K Ω $\pm 5\%$

INTEGRATED CIRCUITS

QT04	HC713200A0	IC 74LS132 Quad 2input NAND Schmitt
QV01	HC10008090	IC NJM4558DD Dual OP AMP
QV02	HC10008090	IC NJM4558DD Dual OP AMP
QV03	HC10008090	IC NJM4558DD Dual OP AMP
QV04	HC10309030	IC LC78212 Analogue Switch
QV05	HC10008090	IC NJM4558DD Dual OP AMP
QV06	HC10310030	IC LC78213 Analogue Switch
QV07	HC10008090	IC NJM4558DD Dual OP AMP

TRANSISTORS

QT01	HW10006320	PHOTO UNIT PC-817
QT02	HW10006320	PHOTO UNIT PC-817

Ref. No.	Part. No.	Description
QT05	BA10007210	DIGITAL DTA114ES
		DIODES
DV01	HD20002000	1SS176
DV02	HD20002000	1SS176

MISCELLANEOUS

JT01	YJ11000500	JACK, 8P DIN
JT02	YJ01004220	JACK, MINI
JT03	YJ01004230	JACK, MINI
JT04	YP06003830	PLUG, 3P
JV01	YT02011020	TERMINAL, 1P RCA PIN JACK IB
JV01	YT02010780	TERMINAL, 1P RCA PIN JACK BK
JV02	YT02060540	TERMINAL, 6P RCA PIN JACK IB
JV02	YT02060500	TERMINAL, 6P RCA PIN JACK BK
JV04	YP06020940	PLUG, 12P
JV05	YP06020940	PLUG, 12P
JV06	YJ06030590	JACK, 24P
JV07	YP06020640	PLUG, 14P
JV08	YP06006720	PLUG, 12P
JV09	YL01010140	TERMINAL, GND
JV10	YP06020940	PLUG, 12P
JV11	YL01010140	TERMINAL, GND
LV04	FM12223010	EMI FILTER
LV05	FM12223010	EMI FILTER
LV06	FM12223010	EMI FILTER
WV01	YB00040430	CONNECTIVE CORD, 1P

PW04-H.P.P.C. BOARD

CAPACITORS

CW01	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CW02	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CW03	DK18103310	CERAMIC 0.01 μ F +80% -20% IB

MISCELLANEOUS

JW01	YJ01004240	JACK, PHONE
JW02	YP06010450	PLUG, 5P
WW01	YB00152110	CONNECTIVE CORD, 1P

PY04-CONNECT P.C. BOARD

CAPACITORS

CS91	EJ10601610	ELECT 10 μ F 16V
CS92	EJ10601610	ELECT 10 μ F 16V
CY01	EJ47502510	ELECT 4.7 μ F 25V
CY02	DD38104010	CERAMIC 0.1 μ F +80% -20%
CY04	DD38104010	CERAMIC 0.1 μ F +80% -20%
CY06	DD15470300	CERAMIC 47PF $\pm 5\%$ IB
CY07	DD15470300	CERAMIC 47PF $\pm 5\%$
CY08	DD15470300	CERAMIC 47PF $\pm 5\%$ BK
CY09	DD15470300	CERAMIC 47PF $\pm 5\%$
CY10	DK18103310	CERAMIC 0.01 μ F +80% -20% BK
CY12	DD15470300	CERAMIC 47PF $\pm 5\%$
CY14	DD38104010	CERAMIC 0.1 μ F +80% -20%
CY15	DK18103310	CERAMIC 0.01 μ F +80% -20%

RESISTORS

RS91	GD05473160	1/6W 47K Ω $\pm 5\%$
RS92	GD05473160	1/6W 47K Ω $\pm 5\%$
RY01	GD05103160	1/6W 10K Ω $\pm 5\%$

Ref. No.	Part. No.	Description
RY02	GD05103160	1/6W 10K Ω $\pm 5\%$
RY03	GD05103160	1/6W 10K Ω $\pm 5\%$
RY04	GD05103160	1/6W 10K Ω $\pm 5\%$
RY05	GD05103160	1/6W 10K Ω $\pm 5\%$
RY06	GD05103160	1/6W 10K Ω $\pm 5\%$
RY07	GD05103160	1/6W 10K Ω $\pm 5\%$
RY08	GD05103160	1/6W 10K Ω $\pm 5\%$
RY09	GD05103160	1/6W 10K Ω $\pm 5\%$
RY10	GD05103160	1/6W 10K Ω $\pm 5\%$
RY11	GD05103160	1/6W 10K Ω $\pm 5\%$
RY12	GD05103160	1/6W 10K Ω $\pm 5\%$
RY13	GD05103160	1/6W 10K Ω $\pm 5\%$
RY14	GD05103160	1/6W 10K Ω $\pm 5\%$
RY15	GD05103160	1/6W 10K Ω $\pm 5\%$
RY18	GD05472160	1/6W 4.7K Ω $\pm 5\%$
RY19	GD05472160	1/6W 4.7K Ω $\pm 5\%$
RY20	GD05103160	1/6W 10K Ω $\pm 5\%$
RY21	GD05103160	1/6W 10K Ω $\pm 5\%$
RY22	GD05103160	1/6W 10K Ω $\pm 5\%$
RY23	GD05332160	1/6W 3.3K Ω $\pm 5\%$
RY24	GD05103160	1/6W 10K Ω $\pm 5\%$
RY25	GD05103160	1/6W 10K Ω $\pm 5\%$
RY26	GD05103160	1/6W 10K Ω $\pm 5\%$
RY27	GD05103160	1/6W 10K Ω $\pm 5\%$
RY28	GD05472160	1/6W 4.7K Ω $\pm 5\%$
RY29	GD05472160	1/6W 4.7K Ω $\pm 5\%$
RY30	GD05103160	1/6W 10K Ω $\pm 5\%$
RY31	GD05103160	1/6W 10K Ω $\pm 5\%$
RY32	GD05103160	1/6W 10K Ω $\pm 5\%$
RY33	GD05103160	1/6W 10K Ω $\pm 5\%$
UY97	GD05102160	1/6W 1K Ω $\pm 5\%$ IB

INTEGRATED CIRCUITS

QY09	HC38115090	IC NJM78L15A Voltage Regulator
QY10	HC10370050	IC TC9173P Port Expander
QY11	HC10250050	IC TC9174P Port Expander
QY12	HC754100B0	IC 74HC541 Octal Buffer/Line Drivers

TRANSISTORS

QY01	BA10001000	DIGITAL DTA114ES
QY02	BA20002000	DIGITAL DTC144ES
QY03	BA10001000	DIGITAL DTA114ES
QY04	BA20002000	DIGITAL DTC144ES
QY05	BA10001000	DIGITAL DTA114ES
QY06	BA20002000	DIGITAL DTC144ES
QY07	BA10001000	DIGITAL DTA114ES
QY08	BA20002000	DIGITAL DTC144ES
QY13	BA20002000	DIGITAL DTC144ES
QY14	BA10001000	DIGITAL DTA114ES
QY15	BA20002000	DIGITAL DTC144ES

DIODES

DY01	HD20002000	1SS176
DY02	HD20002000	1SS176
DY03	HD20002000	1SS176
DY04	HD20002000	1SS176
DY05	HD20002000	1SS176
DY06	HD20002000	1SS176
DY07	HD20002000	1SS176
DY08	HD20002000	1SS176
DY09	HD20002710	1D3 1A/200V
DY10	HD20002000	1SS176
DY11	HD20002000	1SS176
DY14	HD30361000	ZENER, 3.6V

MISCELLANEOUS

JY01	YJ06030140	JACK, 14P
JY02	YP06020670	PLUG, 16P
JY03	YP06020680	PLUG, 20P

Ref. No.	Part. No.	Description
JY04	YJ06030140	JACK, 14P
JY05	YJ06030100	JACK, 10P
JY06	YP06020700	PLUG, 30P
JY07	YJ06030140	JACK, 14P
JY08	YP06020690	PLUG, 24P
JY09	YJ07011240	JACK, 31P
JY10	YP06006680	PLUG, 8P
JY11	YP06003830	PLUG, 3P

P104-TUNER P.C. BOARD**CAPACITORS**

CA01	CT12000200	TRIM.CAP. 20PF
CA02	DK18473310	CERAMIC 0.047 μ F +80% -20%
CA03	DD15150300	CERAMIC 15PF $\pm 5\%$
CA04	DF15391550	FILM 390PF $\pm 5\%$
CA05	DD15470300	CERAMIC 47PF $\pm 5\%$
CA06	DK18103310	CERAMIC 0.01 μ F +80% -20%
CA07	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CA08	CT12000200	TRIM.CAP. 20PF $\pm 1\%$ IB
CA09	DD15150300	CERAMIC 15PF $\pm 5\%$ IB
CA11	DD15680300	CERAMIC 68PF $\pm 5\%$ IB
CA12	DD15151300	CERAMIC 150PF $\pm 5\%$ IB
CA13	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CA14	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
CA18	EJ47502510	ELECT 4.7 μ F 25V
C201	DK18103310	CERAMIC 0.01 μ F +80% -20%
C202	DK18103310	CERAMIC 0.01 μ F +80% -20%
C203	DK18473310	CERAMIC 0.047 μ F +80% -20%
C204	DK18473310	CERAMIC 0.047 μ F +80% -20%
C205	EJ10505010	ELECT 1 μ F 50V
C206	EJ10601610	ELECT 10 μ F 16V
C207	EA10701610	ELECT 100 μ F 16V
C208	DK18473310	CERAMIC 0.047 μ F +80% -20%
C209	EJ10505010	ELECT 1 μ F 50V
C210	DK18103310	CERAMIC 0.01 μ F +80% -20%
C211	EJ22505010	ELECT 2.2 μ F 50V
C212	EJ10505010	ELECT 1 μ F 50V
C213	EJ47405010	ELECT 0.47 μ F 50V
C214	EA47603510	ELECT 47 μ F 35V
C215	DK18473310	CERAMIC 0.047 μ F +80% -20%
C216	EA10701610	ELECT 100 μ F 16V
C217	DK16332300	CERAMIC 3300PF $\pm 10\%$ IB
C217	DF15822350	FILM 8200PF $\pm 5\%$ BK
C218	DK18103310	CERAMIC 0.01 μ F +80% -20%
C219	EJ10601610	ELECT 10 μ F 16V
C220	DK16222300	CERAMIC 2200PF $\pm 10\%$ IB
C220	DK16472300	CERAMIC 4700PF $\pm 10\%$ BK
C222	DK16152300	CERAMIC 1500PF $\pm 10\%$
C223	DK18103310	CERAMIC 0.01 μ F +80% -20%
C224	DK18103310	CERAMIC 0.01 μ F +80% -20% IB
C225	DK18103310	CERAMIC 0.01 μ F +80% -20%
C226	DK18103310	CERAMIC 0.01 μ F +80% -20%
C227	DK16272300	CERAMIC 2700PF $\pm 10\%$ BK
C233	DK18103310	CERAMIC 0.01 μ F +80% -20%
C234	DK18103310	CERAMIC 0.01 μ F +80% -20%
C301	DF15333310	FILM 0.033 μ F $\pm 5\%$ IB
C301	DF15473310	FILM 0.047 μ F $\pm 5\%$ BK
C302	DF15333310	FILM 0.033 μ F $\pm 5\%$ IB
C302	DF15473310	FILM 0.047 μ F $\pm 5\%$ BK
C303	EJ10601610	ELECT 10 μ F 16V
C304	EJ10601610	ELECT 10 μ F 16V
C305	EJ47502510	ELECT 4.7 μ F 25V IB
C306	EJ47502510	ELECT 4.7 μ F 25V IB
C307	EJ10601610	ELECT 10 μ F 16V IB
C308	EJ10601610	ELECT 10 μ F 16V IB
C311	EJ47502510	ELECT 4.7 μ F 25V
C312	EJ47502510	ELECT 4.7 μ F 25V

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
C313	EJ10601610	ELECT 10 μ F 16V IB	R306	GD05153160	1/6W 15K Ω \pm 5% IB
C314	EA47603510	ELECT 47 μ F 35V IB	R307	GD05221160	1/6W 220 Ω \pm 5%
C315	DK16151300	CERAMIC 150PF \pm 10% IB	R308	GD05221160	1/6W 220 Ω \pm 5%
C316	DK16151300	CERAMIC 150PF \pm 10% IB	R309	GD05473160	1/6W 47K Ω \pm 5%
C317	DK16101300	CERAMIC 100PF \pm 10% IB	R310	GD05473160	1/6W 47K Ω \pm 5%
C318	DK16101300	CERAMIC 100PF \pm 10% IB	R311	GD05473160	1/6W 47K Ω \pm 5% IB
C501	DD15470300	CERAMIC 47PF \pm 5%	R312	GD05473160	1/6W 47K Ω \pm 5% IB
C502	DD15470300	CERAMIC 47PF \pm 5%	R313	GG05221140	1/4W 220 Ω \pm 5% IB
C503	EA10700610	ELECT 100 μ F 6.3V	R501	GD05102160	1/6W 1K Ω \pm 5%
C504	DK18103310	CERAMIC 0.01 μ F +80% -20%	R502	GD05332160	1/6W 3.3K Ω \pm 5%
C505	EJ10505010	ELECT 1 μ F 50V	R503	GD05102160	1/6W 1K Ω \pm 5%
C506	EJ10405010	ELECT 0.1 μ F 50V	R504	GD05103160	1/6W 10K Ω \pm 5%
C507	DK18103310	CERAMIC 0.01 μ F +80% -20%	R506	GD05102160	1/6W 1K Ω \pm 5%
C508	EA10701610	ELECT 100 μ F 16V	R507	GD05332160	1/6W 3.3K Ω \pm 5%
C509	DK16101300	CERAMIC 100PF \pm 10%	R508	GD05473160	1/6W 47K Ω \pm 5%
C510	DK16101300	CERAMIC 100PF \pm 10%	R510	GD05102160	1/6W 1K Ω \pm 5%
C511	DK18103310	CERAMIC 0.01 μ F +80% -20%	R511	GD05102160	1/6W 1K Ω \pm 5%
C901	EA10700610	ELECT 100 μ F 6.3V IB	R512	GA05271010	1W 270 Ω \pm 5%
C902	EJ10601610	ELECT 10 μ F 16V IB	R513	GD05103160	1/6W 10K Ω \pm 5%
C903	DK16332300	CERAMIC 3300PF \pm 10% IB	R514	GG05470160	1/6W 47 Ω \pm 5%
C904	DK16332300	CERAMIC 3300PF \pm 10% IB	R515	GD05683160	1/6W 68K Ω \pm 5%
C905	DK18103310	CERAMIC 0.01 μ F +80% -20% IB	R516	GD05473160	1/6W 47K Ω \pm 5%
C906	DK18103310	CERAMIC 0.01 μ F +80% -20% IB	R517	GD05473160	1/6W 47K Ω \pm 5%
C907	EJ10601610	ELECT 10 μ F 16V IB	R901	GD05333160	1/6W 33K Ω \pm 5% IB
C908	EJ10601610	ELECT 10 μ F 16V IB	R902	GD05103160	1/6W 10K Ω \pm 5% IB
C909	EJ47502510	ELECT 4.7 μ F 25V IB	R903	GD05223160	1/6W 22K Ω \pm 5% IB
C910	EJ10601610	ELECT 10 μ F 16V IB	R904	GD05102160	1/6W 1K Ω \pm 5% IB
C911	DK18223310	CERAMIC 0.022 μ F +80% -20% IB	R905	GD05682160	1/6W 6.8K Ω \pm 5% IB
C912	DF15333310	FILM 0.033 μ F \pm 5% IB	R907	GD05102160	1/6W 1K Ω \pm 5% IB
C913	DF15333310	FILM 0.033 μ F \pm 5% IB	R908	GD05332160	1/6W 3.3K Ω \pm 5% IB
C914	DF15682350	FILM 0.0068 μ F \pm 5% IB	R909	GD05103160	1/6W 10K Ω \pm 5% IB
C915	DK18103310	CERAMIC 0.01 μ F +80% -20% IB	R910	GA05221010	1W 220 Ω \pm 5% IB
C916	DD15470300	CERAMIC 47PF \pm 5% IB	R911	GD05103160	1/6W 10K Ω \pm 5% IB

RESISTORS

RA01	GD05103160	1/6W 10K Ω \pm 5%
RA02	GD05104160	1/6W 100K Ω \pm 5%
RA03	GD05103160	1/6W 10K Ω \pm 5% IB
RA04	GD05154160	1/6W 150K Ω \pm 5% IB
RA06	GD05104160	1/6W 100K Ω \pm 5% IB
RA07	GD05103160	1/6W 10K Ω \pm 5% IB
RA08	GD05154160	1/6W 150K Ω \pm 5% IB
RA09	GD05222160	1/6W 2.2K Ω \pm 5% IB
R102	GD05103160	1/6W 10K Ω \pm 5% IB
R103	GD05103160	1/6W 10K Ω \pm 5% IB
R201	GD05101160	1/6W 100 Ω \pm 5% BK
R202	GD05471160	1/6W 470 Ω \pm 5% IB
R202	GD05391160	1/6W 390 Ω \pm 5% BK
R203	GD05222160	1/6W 2.2K Ω \pm 5%
R204	GD05471160	1/6W 470 Ω \pm 5%
R205	GD05331160	1/6W 330 Ω \pm 5%
R206	GD05153160	1/6W 15 Ω \pm 5%
R207	GG05181140	1/4W 180 Ω \pm 5%
R208	GD05392160	1/6W 3.9K Ω \pm 5%
R209	GD05104160	1/6W 100K Ω \pm 5%
R210	GD05332160	1/6W 3.3K Ω \pm 5%
R213	GD05220160	1/6W 22 Ω \pm 5%
R214	GD05473160	1/6W 47K Ω \pm 5%
R215	GD05154160	1/6W 150K Ω \pm 5% IB
R215	GD05333160	1/6W 33K Ω \pm 5% BK
R216	GD05103160	1/6W 10K Ω \pm 5%
R217	GG05181140	1/4W 180 Ω \pm 5% IB
R217	GG05221140	1/4W 220 Ω \pm 5% BK
R219	GD05334160	1/6W 330K Ω \pm 5%
R301	GD05104160	1/6W 100K Ω \pm 5% IB
R302	GD05104160	1/6W 100K Ω \pm 5% IB
R303	GD05103160	1/6W 10K Ω \pm 5% IB
R304	GD05103160	1/6W 10K Ω \pm 5% IB
R305	GD05153160	1/6W 15K Ω \pm 5% IB

RA11	RA02230780	TRIM-POTS 22K Ω
R211	RA02230780	TRIM-POTS 22K Ω (B)
R212	RA04720780	TRIM-POTS 4.7K Ω (B)
R218	RA04720780	TRIM-POTS 4.7K Ω (B) IB
R906	RA04720780	TRIM-POTS 4.7K Ω (B) IB

INTEGRATED CIRCUITS

Q201	HC10342030	IC LA1836 FM/AM IF, MPX IC
Q301	HC10008090	IC NJM4558DD IB Dual OP AMP
Q501	HC10221030	IC LC7218
		PLL Frequency Synthesizer
Q901	HC10315030	IC LA2232 IB
		RDS Demodulator
Q902	HC10333030	IC LC7073 IB
		RDS Error Corrector

TRANSISTORS

QA01	HT30001000	2SC536SP IB
QA02	HT30001000	2SC536SP IB
QA03	HT421442A0	2SD2144S (U, V) IB
QA04	BA10002000	DIGITAL DTA144ES IB
QA05	BA10002000	DIGITAL DTA144ES IB
Q202	HT318091P0	2SC1809SP
Q203	BA10007210	DIGITAL DTA114ES
Q204	BA20002000	DIGITAL DTC144ES
Q503	HT30001000	2SC536SP
Q903	HT30001000	2SC536SP IB

F.E.T.

Q502	HF200300B0	2SK30ATM
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DIODES

DA01	HD40009030	VARICAP SVC342-L
DA02	HD20017210	1SS135 IB
DA03	HD40009030	VARICAP SVC342-L IB
DA04	HD20017210	1SS135 IB

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
DA05	HD20002000	1SS176	CR34	DK98104200	CERAMIC 0.1μF +80% -20%
DA06	HD20002000	1SS176	CR35	DK98104200	CERAMIC 0.1μF +80% -20%
D201	HD20002000	1SS176	CR36	DK98104200	CERAMIC 0.1μF +80% -20%
D202	HD30681000	ZENER 6.8V	CR37	EY10700620	ELECT 100μF 6.3V
D501	HD30511000	ZENER 5.1V	CR38	DK96103200	CERAMIC 0.01μF ±10%
D901	HD30511000	ZENER 5.1V IB	CR39	EY10601620	ELECT 10μF 16V
COILS			CR40	EY10601620	ELECT 10μF 16V
LA01	LA10295170	ANT, MW 280μH	CR41	DD95101300	CERAMIC 100PF ±5%
LA02	LO70013010	OSC, MW	CR42	DD95101300	CERAMIC 100PF ±5%
LA03	LA10295160	ANT, LW IB	CR43	DK98104200	CERAMIC 0.1μF +80% -20%
LA04	LO70013020	OSC, LW IB	CR44	DK98104200	CERAMIC 0.1μF +80% -20%
LA05	LC23960710	CHOKER, 39mH	CR45	DD95331300	CERAMIC 330PF ±5%
L201	LI70376010	I.F.T., FM DET	CR46	DK96104200	CERAMIC 0.1μF ±10%
L301	LS10293020	M.P.X., 19.38KHz	CR47	DD95151300	CERAMIC 150PF ±5%
L302	LS10293020	M.P.X., 19.38KHz	CR48	DK96473200	CERAMIC 0.047μF ±10%
L501	LC14733800	CHOKER, 47μH	CR49	DK98104200	CERAMIC 0.1μF +80% -20%
L502	LC14733800	CHOKER, 47μH	CR50	DK98104200	CERAMIC 0.1μF +80% -20%
L503	LC14733800	CHOKER, 47μH	CR61	DK98104200	CERAMIC 0.1μF +80% -20%
L504	LC14733800	CHOKER, 47μH	CR62	EY10700620	ELECT 100μF 6.3V
MISCELLANEOUS			CR63	EY10700620	ELECT 100μF 6.3V
A101	AV01203020	VHF TUNER, FE415-G11 IB	CR64	DK98104200	CERAMIC 0.1μF +80% -20%
A101	AV01202220	VHF TUNER, FE337-A05 BK	CR65	DK98104200	CERAMIC 0.1μF +80% -20%
F201	FF11070620	CERAMIC FILTER IB	CR66	DK98104200	CERAMIC 0.1μF +80% -20%
F201	FF11070610	CERAMIC FILTER BK	CR67	EY10700620	ELECT 100μF 6.3V
F202	FF11070620	CERAMIC FILTER	CR68	DK96103200	CERAMIC 0.01μF ±10%
J101	YT03030020	TERMINAL, ANT IB	CR69	EY10601620	ELECT 10μF 16V
J101	YT03030080	TERMINAL, ANT BK	CR70	EY10601620	ELECT 10μF 16V
J102	YL01010140	TERMINAL, GND	CR71	DD95101300	CERAMIC 100PF ±5%
J301	YP06020640	PLUG, 14P	CR72	DD95101300	CERAMIC 100PF ±5%
LA06	FF10045330	CERAMIC FILTER	CR73	DK98104200	CERAMIC 0.1μF +80% -20%
X201	FQ04563040	CERAMIC VIB.	CR74	DK98104200	CERAMIC 0.1μF +80% -20%
X501	JX07001260	CRYSTAL, 7.2MHz	CR75	DD95331300	CERAMIC 330PF ±5%
X901	FQ04563040	CERAMIC VIB. CSB456F33 IB	CR76	DD95331300	CERAMIC 330PF ±5%
X902	FQ04004030	CERAMIC VIB. 4.00MHz IB	CR77	DD95151300	CERAMIC 150PF ±5%
			CR78	DD95151300	CERAMIC 150PF ±5%
			CR79	DK98104200	CERAMIC 0.1μF +80% -20%
			CR80	DK98104200	CERAMIC 0.1μF +80% -20%
			C601	EY10601620	ELECT 10μF 16V
			C602	EY10601620	ELECT 10μF 16V
			C603	DD95151300	CERAMIC 150PF ±5%
			C604	DD95151300	CERAMIC 150PF ±5%
			C605	DD95151300	CERAMIC 150PF ±5%
			C606	DD95151300	CERAMIC 150PF ±5%
			C607	DK98104200	CERAMIC 0.1μF +80% -20%
			C608	DK98104200	CERAMIC 0.1μF +80% -20%
			C609	DK98104200	CERAMIC 0.1μF +80% -20%
			C610	DK98104200	CERAMIC 0.1μF +80% -20%
			C611	DK98104200	CERAMIC 0.1μF +80% -20%
			C612	DK98104200	CERAMIC 0.1μF +80% -20%
			C617	DK98104200	CERAMIC 0.1μF +80% -20%
			C618	DK98104200	CERAMIC 0.1μF +80% -20%
			C619	DD95471370	CERAMIC 470PF ±5%
			C620	DD95471370	CERAMIC 470PF ±5%
			C621	EY10601620	ELECT 10μF 16V
			C622	EY10601620	ELECT 10μF 16V
			C623	DK98104200	CERAMIC 0.1μF +80% -20%
			C624	EY10700620	ELECT 100μF 6.3V
			C625	EY10700620	ELECT 100μF 6.3V
			C626	DK98104200	CERAMIC 0.1μF +80% -20%
			C627	DK98104200	CERAMIC 0.1μF +80% -20%
			C628	EY10700620	ELECT 100μF 6.3V
			C629	DK98104200	CERAMIC 0.1μF +80% -20%
			C630	EY10700620	ELECT 100μF 6.3V
			C631	DK98104200	CERAMIC 0.1μF +80% -20%
			C635	DK96103200	CERAMIC 0.01μF ±10%
			C636	DK96103200	CERAMIC 0.01μF ±10%
			C637	DK96103200	CERAMIC 0.01μF ±10%
			C638	DK96103200	CERAMIC 0.01μF ±10%
			C651	DK98104200	CERAMIC 0.1μF +80% -20%

P604-THX PRO-LOGIC DSP P.C. BOARD

CAPACITORS, CHIP		
CR01	DK98104200	CERAMIC 0.1μF +80% -20%
CR02	EY10700620	ELECT 100μF 6.3V
CR03	EY10700620	ELECT 100μF 6.3V
CR04	DK98104200	CERAMIC 0.1μF +80% -20%
CR05	DK98104200	CERAMIC 0.1μF +80% -20%
CR06	DK98104200	CERAMIC 0.1μF +80% -20%
CR07	EY10700620	ELECT 100μF 6.3V
CR08	DK96103200	CERAMIC 0.01μF ±10%
CR09	EY10601620	ELECT 10μF 16V
CR10	EY10601620	ELECT 10μF 16V
CR11	DD95101300	CERAMIC 100PF ±5%
CR12	DD95101300	CERAMIC 100PF ±5%
CR13	DK98104200	CERAMIC 0.1μF +80% -20%
CR14	DK98104200	CERAMIC 0.1μF +80% -20%
CR15	DD95331300	CERAMIC 330PF ±5%
CR16	DD95331300	CERAMIC 330PF ±5%
CR17	DD95151300	CERAMIC 150PF ±5%
CR18	DD95151300	CERAMIC 150PF ±5%
CR19	DK98104200	CERAMIC 0.1μF +80% -20%
CR20	DK98104200	CERAMIC 0.1μF +80% -20%
CR31	DK98104200	CERAMIC 0.1μF +80% -20%
CR32	EY10700620	ELECT 100μF 6.3V
CR33	EY10700620	ELECT 100μF 6.3V

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
C652	EY10700620	ELECT 100μF 6.3V	RR77	NN05000610	1/16W 0 Ω ±5%
C653	DK98104200	CERAMIC 0.1μF +80% -20%	RR81	NN05000610	1/16W 0 Ω ±5%
C654	EY10700620	ELECT 100μF 6.3V	RR82	NN05000610	1/16W 0 Ω ±5%
C657	DK98104200	CERAMIC 0.1μF +80% -20%	RR85	NN05000610	1/16W 0 Ω ±5%
C658	EY10700620	ELECT 100μF 6.3V	R601	NN05102610	1/16W 1K Ω ±5%
C659	DK98104200	CERAMIC 0.1μF +80% -20%	R602	NN05102610	1/16W 1K Ω ±5%
C660	EY10700620	ELECT 100μF 6.3V	R603	NN05473610	1/16W 47K Ω ±5%
C661	DK98104200	CERAMIC 0.1μF +80% -20%	R604	NN05473610	1/16W 47K Ω ±5%
C662	EY10700620	ELECT 100μF 6.3V	R605	NN05103610	1/16W 10K Ω ±5%
C663	DK98104200	CERAMIC 0.1μF +80% -20%	R606	NN05103610	1/16W 10K Ω ±5%
C664	EY10700620	ELECT 100μF 6.3V	R607	NN05103610	1/16W 10K Ω ±5%
C665	DK98104200	CERAMIC 0.1μF +80% -20%	R608	NN05103610	1/16W 10K Ω ±5%
C666	EY10700620	ELECT 100μF 6.3V	R609	NN05103610	1/16W 10K Ω ±5%
C667	DK98104200	CERAMIC 0.1μF +80% -20%	R610	NN05103610	1/16W 10K Ω ±5%
C668	EY10700620	ELECT 100μF 6.3V	R611	NN05103610	1/16W 10K Ω ±5%
C671	EY10601620	ELECT 10μF 16V	R612	NN05103610	1/16W 10K Ω ±5%
C672	DK98104200	CERAMIC 0.1μF +80% -20%	R613	NN05103610	1/16W 10K Ω ±5%
C673	EY10601620	ELECT 10μF 16V	R614	NN05103610	1/16W 10K Ω ±5%
C676	DK98104200	CERAMIC 0.1μF +80% -20%	R615	NN05221610	1/16W 220 Ω ±5%
C677	DK98104200	CERAMIC 0.1μF +80% -20%	R616	NN05221610	1/16W 220 Ω ±5%
C678	DD95101300	CERAMIC 100PF ±5%	R617	NN05103610	1/16W 10K Ω ±5%
C679	DD95101300	CERAMIC 100PF ±5%	R618	NN05103610	1/16W 10K Ω ±5%
C681	DK96103200	CERAMIC 0.01μF ±10%	R619	NN05221610	1/16W 220 Ω ±5%
C682	EY10601620	ELECT 10μF 16V	R620	NN05221610	1/16W 220 Ω ±5%
C683	DK96102300	CERAMIC 1000PF ±5%	R621	NN05103610	1/16W 10K Ω ±5%
C684	DK98104200	CERAMIC 0.1μF +80% -20%	R622	NN05000610	1/16W 0 Ω ±5%
C685	DK98104200	CERAMIC 0.1μF +80% -20%	R661	NN05222610	1/16W 2.2K Ω ±5%
C686	EY10700620	ELECT 100μF 6.3V	R662	NN05222610	1/16W 2.2K Ω ±5%
C687	DK96103200	CERAMIC 0.01μF ±10%	R666	NN05222610	1/16W 2.2K Ω ±5%
C688	DK98104200	CERAMIC 0.1μF +80% -20%	R667	NN05222610	1/16W 2.2K Ω ±5%
C689	DD95120300	CERAMIC 12PF ±5%	R673	NN05000610	1/16W 0 Ω ±5%
C690	DD95120300	CERAMIC 12PF ±5%	R674	NN05000610	1/16W 0 Ω ±5%
C691	DK98104200	CERAMIC 0.1μF +80% -20%	R681	NN05473610	1/16W 47K Ω ±5%
C692	DK98104200	CERAMIC 0.1μF +80% -20%	R682	NN05222610	1/16W 2.2K Ω ±5%
C693	DK98104200	CERAMIC 0.1μF +80% -20%	R683	NN05750610	1/16W 75 Ω ±5%
C694	EY10700620	ELECT 100μF 6.3V	R684	NN05563610	1/16W 56K Ω ±5%

RESISTORS, CHIP

C641	NN05000610	1/16W	0 Ω	$\pm 5\%$
C642	NN05000610	1/16W	0 Ω	$\pm 5\%$
C656	NN05000610	1/16W	0 Ω	$\pm 5\%$
RR01	NN05682610	1/16W	6.8K Ω	$\pm 5\%$
RR02	NN05682610	1/16W	6.8K Ω	$\pm 5\%$
RR03	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR04	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR05	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR06	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR07	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR08	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR09	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR10	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR21	NN05682610	1/16W	6.8K Ω	$\pm 5\%$
RR22	NN05682610	1/16W	6.8K Ω	$\pm 5\%$
RR23	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR24	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR25	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR26	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR27	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR28	NN05273610	1/16W	27K Ω	$\pm 5\%$
RR29	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR30	NN05273610	1/16W	27K Ω	$\pm 5\%$
RR41	NN05473610	1/16W	47K Ω	$\pm 5\%$
RR42	NN05473610	1/16W	47K Ω	$\pm 5\%$
RR43	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR44	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR45	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR46	NN05103610	1/16W	10K Ω	$\pm 5\%$
RR47	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR48	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR49	NN05223610	1/16W	22K Ω	$\pm 5\%$
RR50	NN05223610	1/16W	22K Ω	$\pm 5\%$

Ref. No.	Part No.	Description
RR77	NN05000610	1/16W 0 Ω ±5%
RR81	NN05000610	1/16W 0 Ω ±5%
RR82	NN05000610	1/16W 0 Ω ±5%
RR85	NN05000610	1/16W 0 Ω ±5%
R601	NN05102610	1/16W 1K Ω ±5%
R602	NN05102610	1/16W 1K Ω ±5%
R603	NN05473610	1/16W 47K Ω ±5%
R604	NN05473610	1/16W 47K Ω ±5%
R605	NN05103610	1/16W 10K Ω ±5%
R606	NN05103610	1/16W 10K Ω ±5%
R607	NN05103610	1/16W 10K Ω ±5%
R608	NN05103610	1/16W 10K Ω ±5%
R609	NN05103610	1/16W 10K Ω ±5%
R610	NN05103610	1/16W 10K Ω ±5%
R611	NN05103610	1/16W 10K Ω ±5%
R612	NN05103610	1/16W 10K Ω ±5%
R613	NN05103610	1/16W 10K Ω ±5%
R614	NN05103610	1/16W 10K Ω ±5%
R615	NN05221610	1/16W 220 Ω ±5%
R616	NN05221610	1/16W 220 Ω ±5%
R617	NN05103610	1/16W 10K Ω ±5%
R618	NN05103610	1/16W 10K Ω ±5%
R619	NN05221610	1/16W 220 Ω ±5%
R620	NN05221610	1/16W 220 Ω ±5%
R621	NN05103610	1/16W 10K Ω ±5%
R622	NN05000610	1/16W 0 Ω ±5%
R661	NN05222610	1/16W 2.2K Ω ±5%
R662	NN05222610	1/16W 2.2K Ω ±5%
R666	NN05222610	1/16W 2.2K Ω ±5%
R667	NN05222610	1/16W 2.2K Ω ±5%
R673	NN05000610	1/16W 0 Ω ±5%
R674	NN05000610	1/16W 0 Ω ±5%
R681	NN05473610	1/16W 47K Ω ±5%
R682	NN05222610	1/16W 2.2K Ω ±5%
R683	NN05750610	1/16W 75 Ω ±5%
R684	NN05563610	1/16W 56K Ω ±5%
R685	NN05333610	1/16W 33K Ω ±5%
R686	NN05123610	1/16W 12K Ω ±5%
R687	NN05562610	1/16W 5.6K Ω ±5%
R688	NN05562610	1/16W 5.6K Ω ±5%
R689	NN05121610	1/16W 120 Ω ±5%
R690	NN05224610	1/16W 220K Ω ±5%
R691	NN05471610	1/16W 470 Ω ±5%
R692	NN05123610	1/16W 12K Ω ±5%
R693	NN05750610	1/16W 75 Ω ±5%
R694	NN05000610	1/16W 0 Ω ±5%
R697	NN05104610	1/16W 100K Ω ±5%
L606	NN05000610	1/16W 0 Ω ±5%
L607	RI05000180	1/8W 0 Ω ±5%

INTEGRATED CIRCUITS

Q601	HC10359030	IC	LC83016JE	Digital Signal Processor
Q602	HC10360030	IC	LC83017JE	Digital Signal Processor
Q603	HC10338030	IC	LC32464PM-80	64kx4bit Dram
Q604	HC10338030	IC	LC32464PM-80	64kx4bit Dram
Q605	HC10015480	IC	AK4320 (DAC)	Digital Analogue Converter
Q606	HC10015480	IC	AK4320 (DAC)	Digital Analogue Converter
Q607	HC10015480	IC	AK4320 (DAC)	Digital Analogue Converter
Q608	HC10016480	IC	AK5389 (ADC)	Analogue Digital Converter
Q609	HC10172090	IC	NJM2115M	Dual OP AMP
Q610	HC10172090	IC	NJM2115M	Dual OP AMP
Q611	HC10172090	IC	NJM2115M	Dual OP AMP
Q612	HC10172090	IC	NJM2115M	Dual OP AMP
Q613	HC10011090	IC	NJM4558M (Y)	Dual OP AMP
Q614	HC10011090	IC	NJM4558M (Y)	Dual OP AMP
Q615	HC10011090	IC	NJM4558M (Y)	Dual OP AMP

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
Q616	HC10011090	IC NJM4558M (Y) Dual OP AMP	C752	DK16681300	CERAMIC 680PF $\pm 10\%$ IB
Q617	HC10011090	IC NJM4558M (Y) Dual OP AMP	C752	DD15680300	CERAMIC 68PF $\pm 5\%$ BK
Q618	HC10011090	IC NJM4558M (Y) Dual OP AMP	C753	DK16331300	CERAMIC 330PF $\pm 10\%$
Q619	HC10339030	IC LC8903Q	C754	EA47700610	ELECT 470 μ F 6.3V
		Digital Audio Interface	C756	OA10610020	ELECT 10 μ F 100V
Q620	HC700400Z0	IC 74HCU04 Hex Inverters	C757	DK16221300	CERAMIC 220PF $\pm 10\%$
Q621	HC700800Z0	IC 74HC08	C758	DD15470300	CERAMIC 47PF $\pm 5\%$
		Quad 2input AND gate	C759	EA10510010	ELECT 1 μ F 100V
Q622	HC99005090	IC NJM79L05UA	C760	OA47706320	ELECT 470 μ F 63V
		Voltage Regulator	C761	OA47706320	ELECT 470 μ F 63V
		TRANSISTOR	C762	EJ10405010	ELECT 0.1 μ F 50V
Q623	BA20004210	DIGITAL DTC144EK	C763	EJ10405010	ELECT 0.1 μ F 50V
		MISCELLANEOUS	▲C801	DK18103560	CERAMIC 0.01 μ F +80% -20%
J601	YJ06031000	JACK, 12P	▲C802	OB27906310	ELECT 27000 μ F 63V
J602	YJ06031000	JACK, 12P	▲C803	OB27906310	ELECT 27000 μ F 63V
J603	YJ06031000	JACK, 12P	▲C804	DK18103560	CERAMIC 0.01 μ F +80% -20%
L601	FM32102010	EMI FILTER	▲C805	EB10906380	ELECT 10000 μ F 63V
L602	FN31000010	FEI FILTER	▲C806	EB10906380	ELECT 10000 μ F 63V
L603	FN31000010	FEI FILTER	C807	DK18103310	CERAMIC 0.01 μ F +80% -20%
L604	FN31000010	EMI FILTER	C808	DK18103310	CERAMIC 0.01 μ F +80% -20%
L605	FN31000010	EMI FILTER	C809	EA33802510	ELECT 3300 μ F 25V
X681	FZ02255030	CERAMIC RESONATOR 22.5792MHz	C810	EA33802510	ELECT 3300 μ F 25V
			C811	DK18103310	CERAMIC 0.01 μ F +80% -20%
			C812	DK18103310	CERAMIC 0.01 μ F +80% -20%
			C813	EA10701610	ELECT 100 μ F 16V
			C814	EA10701610	ELECT 100 μ F 16V
			C815	DK18103310	CERAMIC 0.01 μ F +80% -20%
			C816	DK18103310	CERAMIC 0.01 μ F +80% -20%
			C817	EA22801610	ELECT 2200 μ F 16V
			C818	EA22801610	ELECT 2200 μ F 16V
			C820	DA17103110	CERAMIC 0.01 μ F $\pm 20\%$
			C821	EA10701610	ELECT 100 μ F 16V
			C822	EA10701610	ELECT 100 μ F 16V
			C823	EA10701610	ELECT 100 μ F 16V
			C824	DK18103310	CERAMIC 0.01 μ F +80% -20%
			C825	EA10701610	ELECT 100 μ F 16V
			C826	EA10701610	ELECT 100 μ F 16V
			C827	EA10701610	ELECT 100 μ F 16V
			C828	EA10701610	ELECT 100 μ F 16V
			C829	EA10701610	ELECT 100 μ F 16V
					RESISTORS
			▲RN01	GG05122160	1/6W 1.2K Ω $\pm 5\%$
			▲RN02	GG05122160	1/6W 1.2K Ω $\pm 5\%$
			RN03	GD05103160	1/6W 10K Ω $\pm 5\%$
			RN04	GD05103160	1/6W 10K Ω $\pm 5\%$
			RN05	GD05102160	1/6W 1K Ω $\pm 5\%$
			RN06	GD05102160	1/6W 1K Ω $\pm 5\%$
			RN07	GD05223160	1/6W 22K Ω $\pm 5\%$
			RN08	GD05223160	1/6W 22K Ω $\pm 5\%$
			RN10	GD05682160	1/6W 6.8K Ω $\pm 5\%$
			RN11	GD05473160	1/6W 47K Ω $\pm 5\%$
			RN12	GD05472160	1/6W 4.7K Ω $\pm 5\%$
			RN13	GD05473160	1/6W 47K Ω $\pm 5\%$
			RN14	GD05473160	1/6W 47K Ω $\pm 5\%$
			RN15	GD05104160	1/6W 100K Ω $\pm 5\%$
			RN16	GD05822160	1/6W 8.2K Ω $\pm 5\%$
			RN20	GG05222140	1/6W 2.2K Ω $\pm 5\%$
			RN21	GD05473160	1/6W 47K Ω $\pm 5\%$
			RN22	GD05333160	1/6W 33K Ω $\pm 5\%$
			RN23	GD05683160	1/6W 68K Ω $\pm 5\%$
			RN24	GD05683160	1/6W 68K Ω $\pm 5\%$
			RN25	GD05683160	1/6W 68K Ω $\pm 5\%$
			RN26	GD05683160	1/6W 68K Ω $\pm 5\%$
			▲RN27	GA05561010	1W 560 Ω $\pm 5\%$
			▲RN28	GA05561010	1W 560 Ω $\pm 5\%$
			RN30	GD05103160	1/6W 10K Ω $\pm 5\%$
			RN31	GD05103160	1/6W 10K Ω $\pm 5\%$
			RN32	GD05223160	1/6W 22K Ω $\pm 5\%$
			RN33	GD05103160	1/6W 10K Ω $\pm 5\%$

P704-MAIN AMP P.C. BOARD

CAPACITORS

CN03	EA22601610	ELECT	22 μ F	16V
CN04	EJ33505010	ELECT	3.3 μ F	50V IB
CN04	EJ22505010	ELECT	2.2 μ F	50V BK
CN05	DD38104010	CERAMIC	0.1 μ F	+80% -20%
CN06	EJ47601610	ELECT	47 μ F	16V
CN07	EJ47601610	ELECT	47 μ F	16V
CN08	EJ10505010	ELECT	1 μ F	50V
CN09	EJ10701010	ELECT	100 μ F	10V
CN10	DD38104010	CERAMIC	0.1 μ F	+80% -20%
CN12	DD38104010	CERAMIC	0.1 μ F	+80% -20%
CN13	DK16101300	CERAMIC	100PF	$\pm 10\%$ IB
CN14	DK16101300	CERAMIC	100PF	$\pm 10\%$ IB
CN15	DK18103310	CERAMIC	0.01 μ F	+80% -20% IB
CN16	DK18103310	CERAMIC	0.01 μ F	+80% -20% IB
C701	OA47601020	ELECT	47 μ F	10V
C702	OA47601020	ELECT	47 μ F	10V
C703	DK16681300	CERAMIC	680PF	$\pm 10\%$ IB
C703	DD15680300	CERAMIC	68PF	$\pm 5\%$ BK
C704	DK16681300	CERAMIC	680PF	$\pm 10\%$ IB
C704	DD15680300	CERAMIC	68PF	$\pm 5\%$ BK
C705	DK16331300	CERAMIC	330PF	$\pm 10\%$
C706	DK16331300	CERAMIC	330PF	$\pm 10\%$
C707	EA47700610	ELECT	470 μ F	6.3V
C708	EA47700610	ELECT	470 μ F	6.3V
C709	EA10510010	ELECT	1 μ F	100V
C710	EA10510010	ELECT	1 μ F	100V
C711	OA10610020	ELECT	10 μ F	100V
C712	OA10610020	ELECT	10 μ F	100V
C713	DK16221300	CERAMIC	220PF	$\pm 10\%$
C714	DK16221300	CERAMIC	220PF	$\pm 10\%$
C715	DD15470300	CERAMIC	47PF	$\pm 5\%$
C716	DD15470300	CERAMIC	47PF	$\pm 5\%$
C719	OA47706320	ELECT	470 μ F	63V
C720	OA47706320	ELECT	470 μ F	63V
C721	OA47706320	ELECT	470 μ F	63V
C722	OA47706320	ELECT	470 μ F	63V
C723	OA10405020	ELECT	0.1 μ F	50V
C724	OA10405020	ELECT	0.1 μ F	50V
C725	OA10405020	ELECT	0.1 μ F	50V
C726	OA10405020	ELECT	0.1 μ F	50V
C751	OA47601020	ELECT	47 μ F	10V

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
RN35	GD05100160	1/6W 10 Ω $\pm 5\%$	▲ R754	GG05181140	1/4W 180 Ω $\pm 5\%$
RN36	GG05222160	1/6W 2.2K Ω $\pm 5\%$	▲ R755	GG05100140	1/4W 10 Ω $\pm 5\%$
RN41	GD05100160	1/6W 10 Ω $\pm 5\%$	▲ R756	GG05100140	1/4W 10 Ω $\pm 5\%$
RN42	GD05100160	1/6W 10 Ω $\pm 5\%$	▲ R757	GG05100140	1/4W 10 Ω $\pm 5\%$
▲ RN43	GG05101160	1/6W 100 Ω $\pm 5\%$	▲ R758	GG05100140	1/4W 10 Ω $\pm 5\%$
▲ RN44	GG05101160	1/6W 100 Ω $\pm 5\%$	▲ R759	BZ10182020	0.18 Ω 5W x 2 ARRAY
▲ RN45	GG05101160	1/6W 100 Ω $\pm 5\%$	▲ R760	BZ10182020	0.18 Ω 5W x 2 ARRAY
▲ RN46	GG05101160	1/6W 100 Ω $\pm 5\%$	▲ R761	GG05100160	1/6W 10 Ω $\pm 5\%$
▲ RN51	GG05122160	1/6W 1.2K Ω $\pm 5\%$	▲ R762	GG05100160	1/6W 10 Ω $\pm 5\%$
RN52	GD05103160	1/6W 10K Ω $\pm 5\%$	▲ R763	GA05100010	1W 10 Ω $\pm 5\%$
RN53	GD05102160	1/6W 1K Ω $\pm 5\%$	▲ R764	GA05100010	1W 10 Ω $\pm 5\%$
RN54	GD05223160	1/6W 22K Ω $\pm 5\%$	R765	GD05333160	1/6W 33K Ω $\pm 5\%$
RN55	GD05683160	1/6W 68K Ω $\pm 5\%$	R766	GD05102160	1/6W 1K Ω $\pm 5\%$ IB
RN56	GD05100160	1/6W 10 Ω $\pm 5\%$	R766	GD05333160	1/6W 330 Ω $\pm 5\%$ BK
▲ RN57	GG05101160	1/6W 100 Ω $\pm 5\%$	R767	GD05221160	1/6W 220 Ω $\pm 5\%$
▲ RN58	GG05101160	1/6W 100 Ω $\pm 5\%$	R768	GD05152160	1/6W 1.5K Ω $\pm 5\%$
RN61	GD05472160	1/6W 4.7K Ω $\pm 5\%$	R769	GD05561160	1/6W 560 Ω $\pm 5\%$
RN62	GD05472160	1/6W 4.7K Ω $\pm 5\%$	R770	GD05151160	1/6W 150 Ω $\pm 5\%$
R701	GD05333160	1/6W 33K Ω $\pm 5\%$	R771	GD05152160	1/6W 1.5K Ω $\pm 5\%$
R702	GD05333160	1/6W 33K Ω $\pm 5\%$	R772	GD05271160	1/6W 270 Ω $\pm 5\%$
R703	GD05102160	1/6W 1K Ω $\pm 5\%$ IB	R773	GD05224160	1/6W 220K Ω $\pm 5\%$
R703	GD05333160	1/6W 330 Ω $\pm 5\%$ BK	R774	GD05473160	1/6W 47K Ω $\pm 5\%$
R704	GD05102160	1/6W 1K Ω $\pm 5\%$ IB	R775	GD05561160	1/6W 560 Ω $\pm 5\%$
R704	GD05333160	1/6W 330 Ω $\pm 5\%$ BK	▲ R776	GG05561160	1/6W 560 Ω $\pm 5\%$
R705	GD05221160	1/6W 220 Ω $\pm 5\%$	▲ R777	GG05561160	1/6W 560 Ω $\pm 5\%$
R706	GD05221160	1/6W 220 Ω $\pm 5\%$	R778	GD05122160	1/6W 1.2K Ω $\pm 5\%$
R707	GD05152160	1/6W 1.5K Ω $\pm 5\%$	▲ R779	GG05561160	1/6W 560 Ω $\pm 5\%$
R708	GD05152160	1/6W 1.5K Ω $\pm 5\%$	▲ R780	GG05561160	1/6W 560 Ω $\pm 5\%$
R709	GD05561160	1/6W 560 Ω $\pm 5\%$	R781	GD05104160	1/6W 100K Ω $\pm 5\%$
R710	GD05561160	1/6W 560 Ω $\pm 5\%$	▲ R783	GG05560160	1/6W 56 Ω $\pm 5\%$
R711	GD05151160	1/6W 150 Ω $\pm 5\%$	▲ R784	GG05560160	1/6W 56 Ω $\pm 5\%$
R712	GD05151160	1/6W 150 Ω $\pm 5\%$	R785	GD05682160	1/6W 6.8K Ω $\pm 5\%$
R713	GD05152160	1/6W 1.5K Ω $\pm 5\%$	R787	GD05272160	1/6W 2.7K Ω $\pm 5\%$
R714	GD05152160	1/6W 1.5K Ω $\pm 5\%$	R788	GD05333160	1/6W 33K Ω $\pm 5\%$
R715	GD05271160	1/6W 270 Ω $\pm 5\%$	▲ R789	GG05022160	1/6W 2.2 Ω $\pm 5\%$
R716	GD05271160	1/6W 270 Ω $\pm 5\%$	▲ R790	GG05022160	1/6W 2.2 Ω $\pm 5\%$
R717	GD05224160	1/6W 220K Ω $\pm 5\%$	▲ R791	GG05181140	1/6W 180 Ω $\pm 5\%$
R718	GD05224160	1/6W 220K Ω $\pm 5\%$	▲ R792	GG05100140	1/4W 10 Ω $\pm 5\%$
R719	GD05473160	1/6W 47K Ω $\pm 5\%$	▲ R793	GG05100140	1/4W 10 Ω $\pm 5\%$
R720	GD05473160	1/6W 47K Ω $\pm 5\%$	▲ R794	BZ10182020	0.18 Ω 5W x 2 ARRAY
R721	GD05561160	1/6W 560 Ω $\pm 5\%$	▲ R795	GG05100160	1/6W 10 Ω $\pm 5\%$
R722	GD05561160	1/6W 560 Ω $\pm 5\%$	▲ R796	GA05100010	1W 10 Ω $\pm 5\%$
▲ R723	GG05561160	1/6W 560 Ω $\pm 5\%$	R797	GD05102160	1/6W 1K Ω $\pm 5\%$ IB
▲ R724	GG05561160	1/6W 560 Ω $\pm 5\%$	R797	GD05222160	1/6W 2.2K Ω $\pm 5\%$ BK
▲ R725	GG05561160	1/6W 560 Ω $\pm 5\%$	R798	GD05102160	1/6W 1K Ω $\pm 5\%$ IB
▲ R726	GG05561160	1/6W 560 Ω $\pm 5\%$	R798	GD05222160	1/6W 2.2K Ω $\pm 5\%$ BK
R727	GD05122160	1/6W 1.2K Ω $\pm 5\%$	R799	GD05102160	1/6W 1K Ω $\pm 5\%$ IB
R728	GD05122160	1/6W 1.2K Ω $\pm 5\%$	R799	GD05222160	1/6W 2.2K Ω $\pm 5\%$ BK
▲ R729	GG05561160	1/6W 560 Ω $\pm 5\%$	▲ R801	GG05010140	1/4W 1 Ω $\pm 5\%$ BK
▲ R730	GG05561160	1/6W 560 Ω $\pm 5\%$	▲ R802	GG05010140	1/4W 1 Ω $\pm 5\%$ BK
▲ R731	GG05561160	1/6W 560 Ω $\pm 5\%$	▲ R803	GG05010140	1/4W 1 Ω $\pm 5\%$ BK
▲ R732	GG05561160	1/6W 560 Ω $\pm 5\%$	▲ R804	GG05010140	1/4W 1 Ω $\pm 5\%$ BK
R733	GD05104160	1/6W 100K Ω $\pm 5\%$	▲ U700	GG05010140	1/4W 1 Ω $\pm 5\%$ IB
R734	GD05104160	1/6W 100K Ω $\pm 5\%$	▲ U701	GG05010140	1/4W 1 Ω $\pm 5\%$ IB
▲ R737	GG05560160	1/6W 56 Ω $\pm 5\%$	▲ U702	GG05010140	1/4W 1 Ω $\pm 5\%$ IB
▲ R738	GG05560160	1/6W 56 Ω $\pm 5\%$	▲ U703	GG05010140	1/4W 1 Ω $\pm 5\%$ IB
▲ R739	GG05560160	1/6W 56 Ω $\pm 5\%$			
▲ R740	GG05560160	1/6W 56 Ω $\pm 5\%$			
R741	GD05682160	1/6W 6.8K Ω $\pm 5\%$			
R742	GD05682160	1/6W 6.8K Ω $\pm 5\%$			
R745	GD05272160	1/6W 2.7K Ω $\pm 5\%$			
R746	GD05272160	1/6W 2.7K Ω $\pm 5\%$			
R747	GD05333160	1/6W 33K Ω $\pm 5\%$			
R748	GD05333160	1/6W 33K Ω $\pm 5\%$			
▲ R749	GG05022160	1/6W 2.2 Ω $\pm 5\%$			
▲ R750	GG05022160	1/6W 2.2 Ω $\pm 5\%$			
▲ R751	GG05022160	1/6W 2.2 Ω $\pm 5\%$			
▲ R752	GG05022160	1/6W 2.2 Ω $\pm 5\%$			
▲ R753	GG05181140	1/4W 180 Ω $\pm 5\%$			

CONTROLS

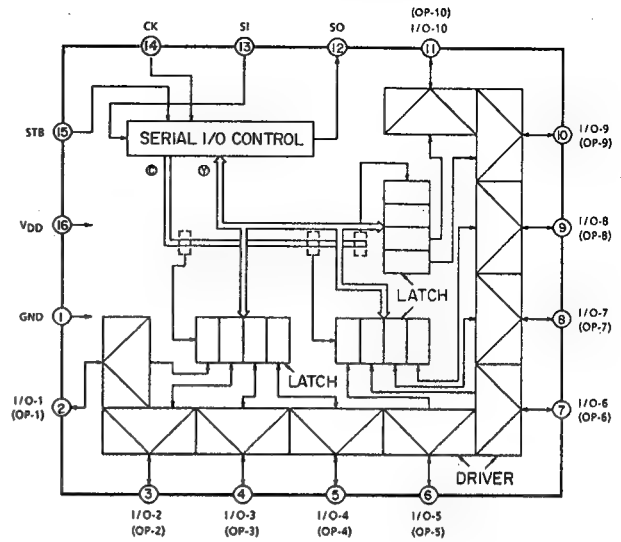
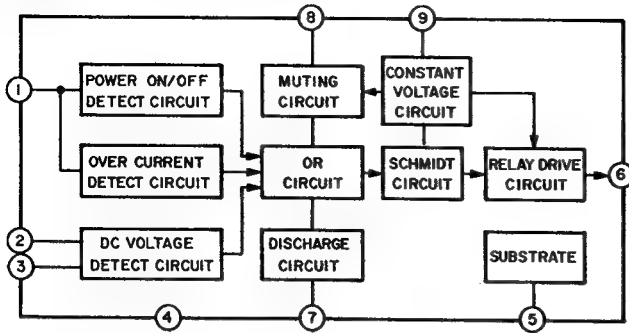
RN63	RA01010780	TRIM-POTS 100 Ω
RN64	RA01010780	TRIM-POTS 100 Ω
RN70	RA01010780	TRIM-POTS 100 Ω
R743	RA02220780	TRIM-POTS 2.2K Ω
R744	RA02220780	TRIM-POTS 2.2K Ω
R786	RA02220780	TRIM-POTS 2.2K Ω

Ref. No.	Part. No.	Description	Ref. No.	Part. No.	Description
INTEGRATED CIRCUITS					
QN04	HC10042050	IC TA7317P (AVR80) Over Load Protector	D707	HD20027010	HSS81TD
▲Q801	HC38915090	IC NJM7815FA Voltage Regulator	D708	HD20027010	HSS81TD
▲Q802	HC39915090	IC NJM7915FA Voltage Regulator	D709	HD30911000	ZENER, 9.1V
▲Q803	HC38905090	IC NJM7805FA Voltage Regulator	D710	HD30911000	ZENER, 9.1V
▲Q804	HC39905090	IC NJM7905FA Voltage Regulator	D711	HD30911000	ZENER, 9.1V
▲Q805	HC38905090	IC NJM7805FA Voltage Regulator	D712	HD30911000	ZENER, 9.1V
TRANSISTORS			D751	HD20002000	1SS176
▲QN01	HT322402A0	2SC2240 (GR, BL)	D752	HD20002000	1SS176
▲QN02	HT322402A0	2SC2240 (GR, BL)	D753	HD20027010	HSS81TD
QN03	HT109702A0	2SA970 (GR, BL)	D754	HD20027010	HSS81TD
QN07	HT10001000	2SA608SP	D755	HD30911000	ZENER, 9.1V
QN08	HT316272B0	2SC1627 (O, Y)	D756	HD30911000	ZENER, 9.1V
▲QN51	HT322402A0	2SC2240 (GR, BL)	▲D801	HE20012290	D5FB20
Q701	HT109702A0	2SA970 (GR, BL)	▲D802	HE20012290	D5FB20
Q702	HT109702A0	2SA970 (GR, BL)	▲D803	HE20011290	S2VB20
Q703	HT109702A0	2SA970 (GR, BL)	▲D804	HE20011290	S2VB20
Q704	HT109702A0	2SA970 (GR, BL)	D805	HD20002710	1D3 1A/200V
Q705	HT109702A0	2SA970 (GR, BL)	D806	HD20002710	1D3 1A/200V
Q706	HT109702A0	2SA970 (GR, BL)	D807	HD20002710	1D3 1A/200V
Q707	HT327052A0	2SC2705 (O, Y)	D808	HD20002710	1D3 1A/200V
Q708	HT327052A0	2SC2705 (O, Y)	D809	HD20002710	1D3 1A/200V
Q709	HT327052A0	2SC2705 (O, Y)	COILS		
Q710	HT327052A0	2SC2705 (O, Y)	L701	ML08010030	AIR, SPK CHOCK
Q711	HT113602A0	2SA1360 (O, Y)	L702	ML08010030	AIR, SPK CHOCK
Q712	HT113602A0	2SA1360 (O, Y)	L751	ML08010030	AIR, SPK CHOCK
Q713	HT334232A0	2SC3423 (O, Y)	MISCELLANEOUS		
Q714	HT334232A0	2SC3423 (O, Y)	▲F801	FS20040210	FUSE TR5 T400MA 250V (BK)
Q715	HT334191Y0	2SC3419Y	JN01	YP06013130	PLUG, 13P (AVR80MK II)
Q716	HT334191Y0	2SC3419Y	J701	YP06004570	PLUG, 13P
▲Q717	HT348821A0	2SC4883 (O, Y)	J702	YP06019700	PLUG, 20P
▲Q718	HT348821A0	2SC4883 (O, Y)	J706	YP06010450	PLUG, 5P
▲Q719	HT118592A0	2SA1859 (O, Y)	J707	YL01010240	TERMINAL, GND
▲Q720	HT118592A0	2SA1859 (O, Y)	J708	YL01010240	TERMINAL, GND
▲Q721	HT332812A0	2SC3281 (R, O)	J709	YL01010240	TERMINAL, GND
▲Q722	HT332812A0	2SC3281 (R, O)	J710	YL01010240	TERMINAL, GND
▲Q723	HT113022A0	2SA1302 (R, O)	J711	YL01010240	TERMINAL, GND
▲Q724	HT113022A0	2SA1302 (R, O)	J712	YL01010240	TERMINAL, GND
Q751	HT109702A0	2SA970 (GR, BL)	J801	YP06010950	PLUG, 5P
Q752	HT109702A0	2SA970 (GR, BL)	J802	YP06003690	PLUG, 6P
Q753	HT109702A0	2SA970 (GR, BL)	J803	YP06010950	PLUG, 5P
Q754	HT327052A0	2SC2705 (O, Y)	J804	YP06003830	PLUG, 3P
Q755	HT327052A0	2SC2705 (O, Y)	LN01	LY20180020	RELAY
Q756	HT113602A0	2SA1360 (O, Y)	LN02	LY20180020	RELAY
Q757	HT334232A0	2SC3423 (O, Y)	LN03	LY20240410	RELAY (AVR80MK II)
Q758	HT334191Y0	2SC3419Y	LN03	LY20240450	RELAY (AVR80)
▲Q759	HT348821A0	2SC4883 (O, Y)	LN51	LY20180020	RELAY
▲Q760	HT118592A0	2SA1859 (O, Y)	P754-SPK TERMINAL P.C. BOARD		
▲Q761	HT332812A0	2SC3281 (R, O)			
▲Q762	HT113022A0	2SA1302 (R, O)			
DIODES			CAPACITORS		
DN01	HD20002710	1D3 1A/200V	C727	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
DN02	HD20002710	1D3 1A/200V	C728	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
DN03	HD20002710	1D3 1A/200V	C729	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
DN04	HD20002710	1D3 1A/200V	C730	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
DN07	HD20027010	HSS81TD	C731	DK18223310	CERAMIC 0.022μF +80% -20% (IB)
DN08	HD20027010	HSS81TD	C732	DK18223310	CERAMIC 0.022μF +80% -20% (IB)
DN09	HD20002710	1D3 1A/200V	C733	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
DN51	HD20002710	1D3 1A/200V	C734	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
DN52	HD20027010	HSS81TD	C764	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
D701	HD20002000	1SS176	C765	DK18103310	CERAMIC 0.01μF +80% -20% (IB)
D702	HD20002000	1SS176	MISCELLANEOUS		
D703	HD20002000	1SS176	J703	YJ06020800	JACK, 20P
D704	HD20002000	1SS176	J704	YT01080120	TERMINAL, SPK 8P
D705	HD20027010	HSS81TD	J751	YT01020220	TERMINAL, SPK2P
D706	HD20027010	HSS81TD			

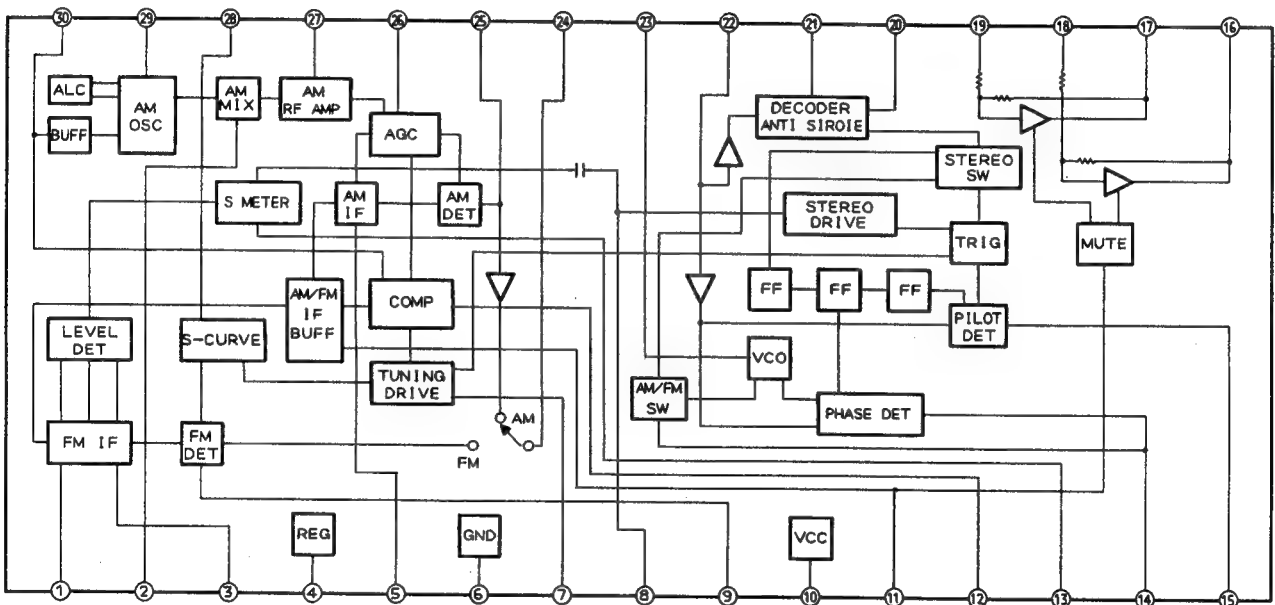
IC BLOCK DIAGRAMS

QY10 : TC9173 QY11 : TC9174
PORT EXPANDER

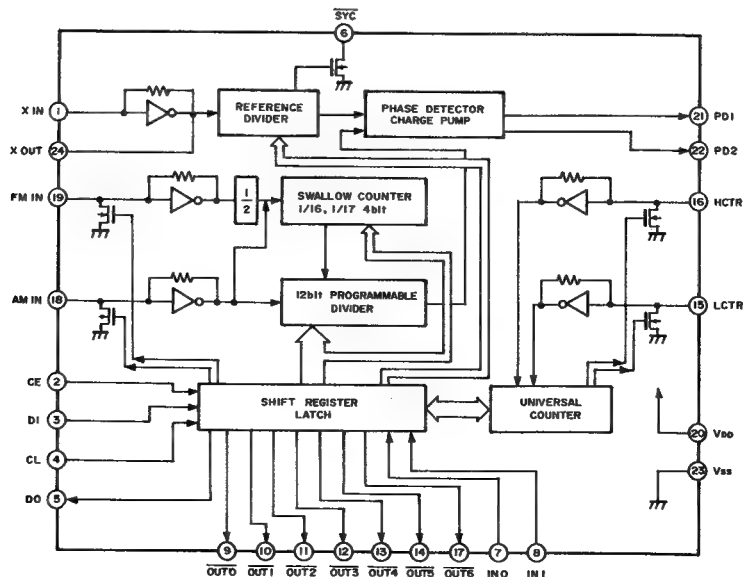
QN04 : TA7317P OVER LOAD PROTECTOR



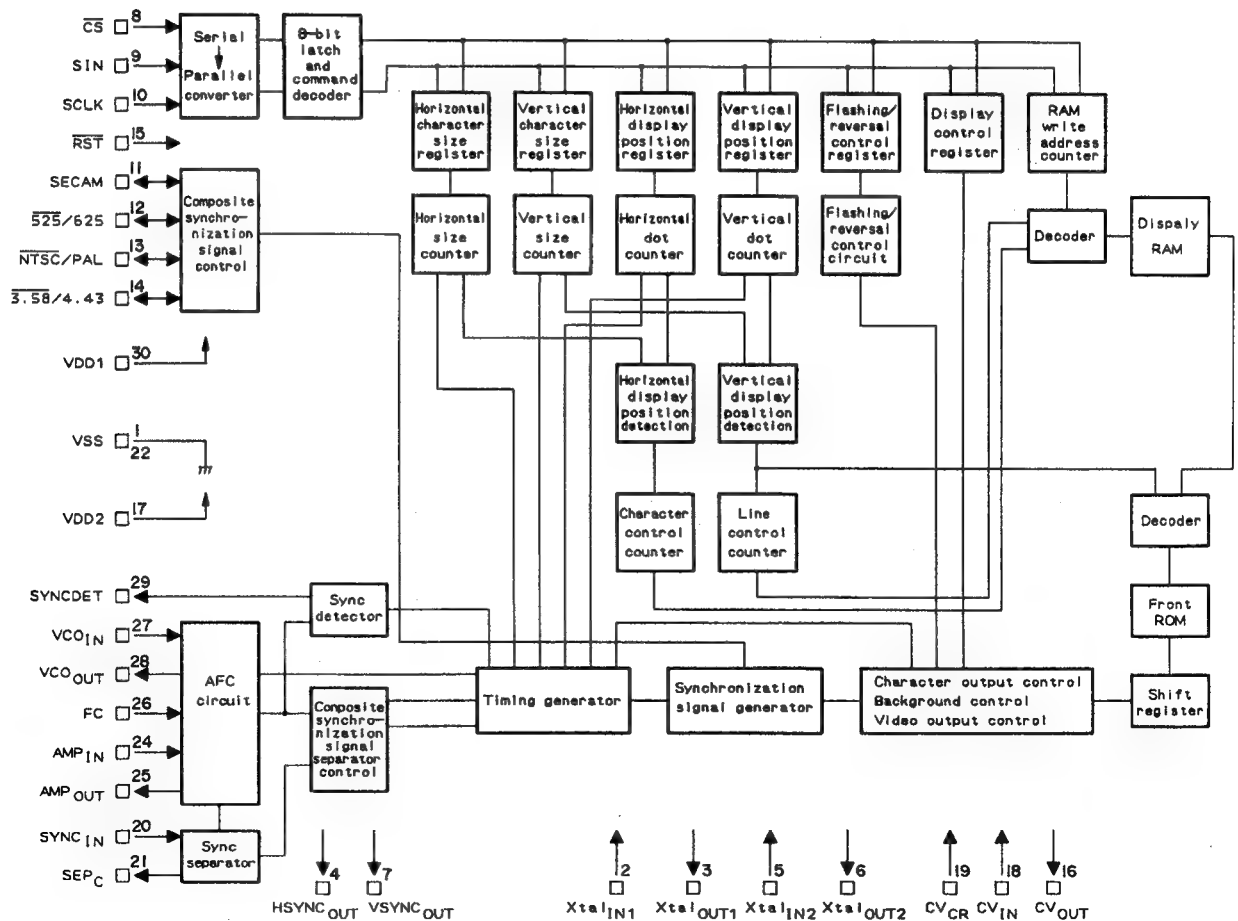
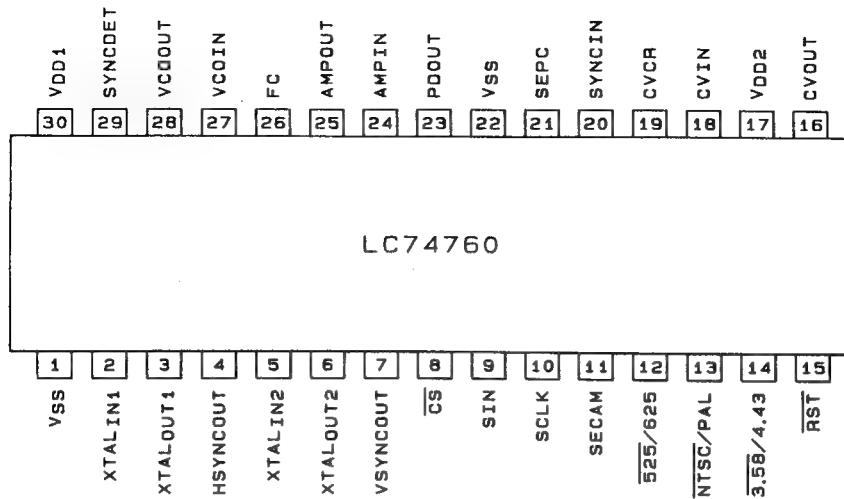
Q201 : LA1836 FM / AM IF, MPX IC



Q501 : LC7218 PLL FREQUENCY SYNTHESIZER



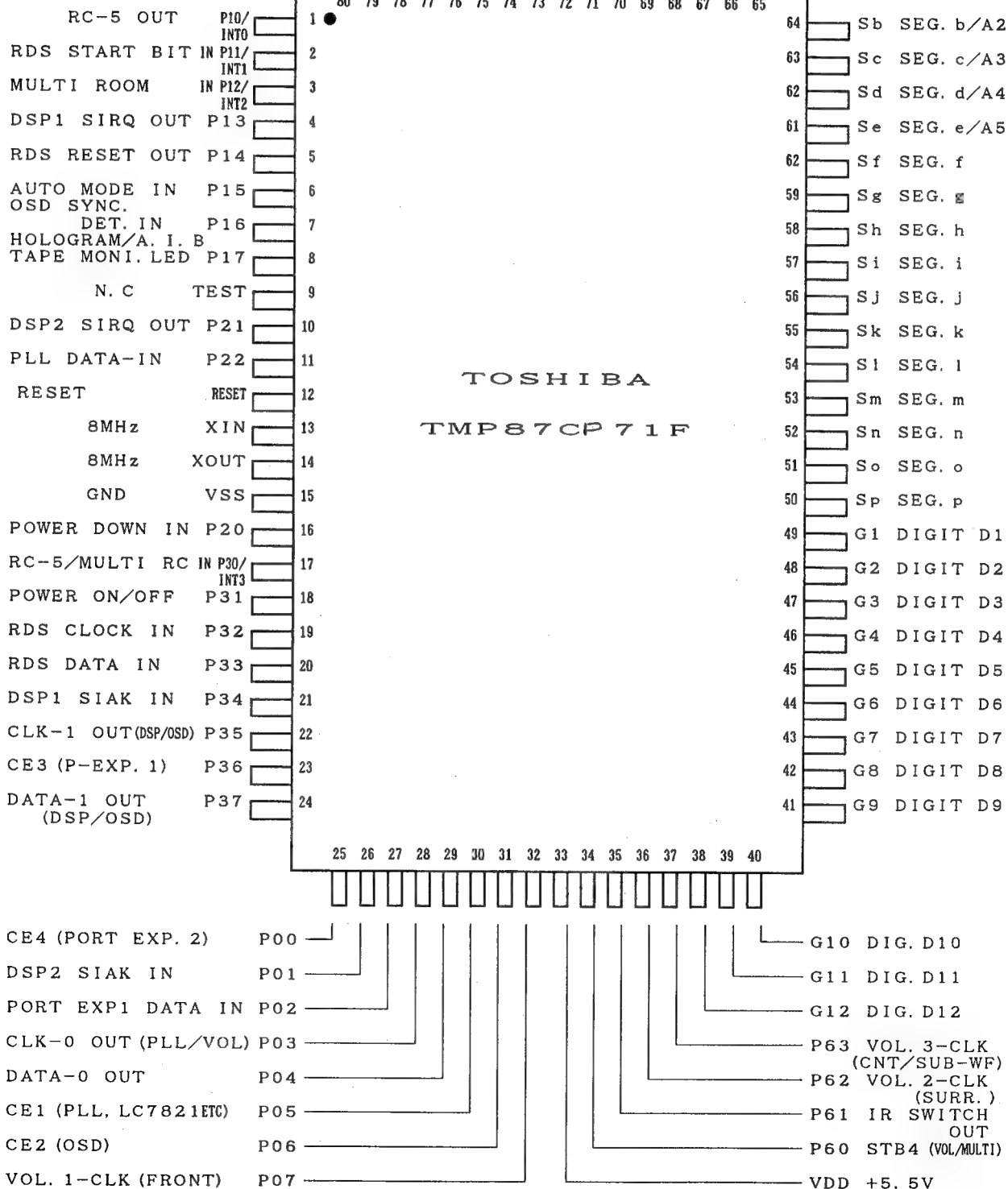
QX60 : LC74760-9004
OSD LSI

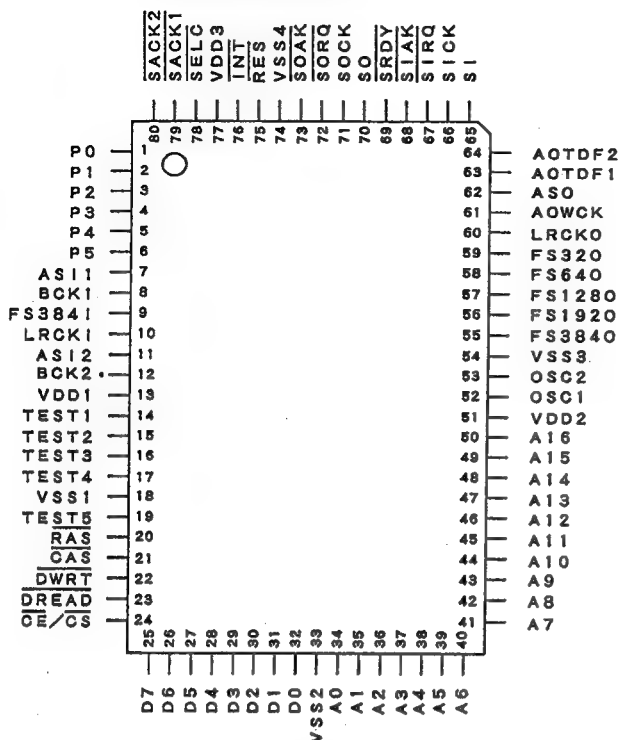
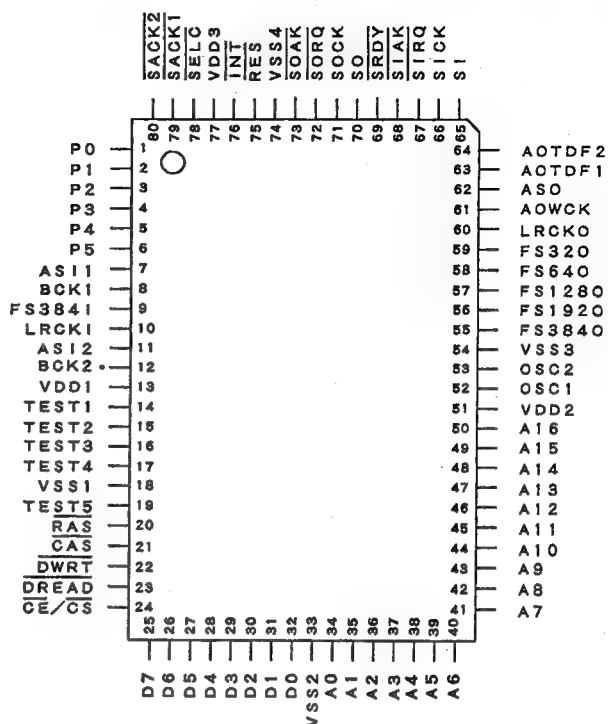
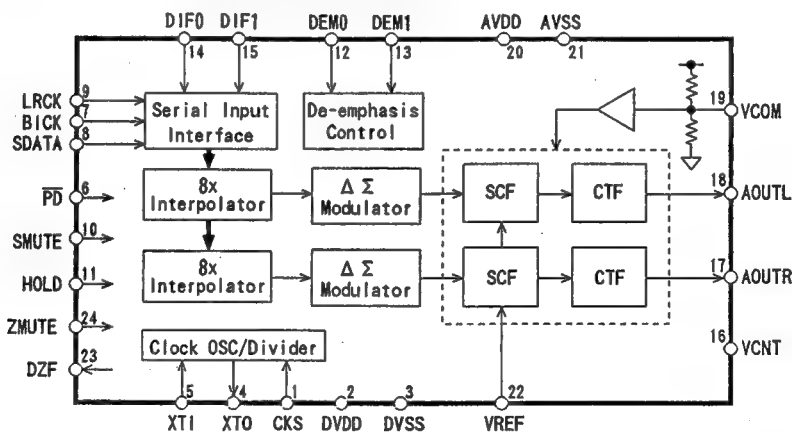


QU01 : TMP87CP71F MICROPROCESSOR

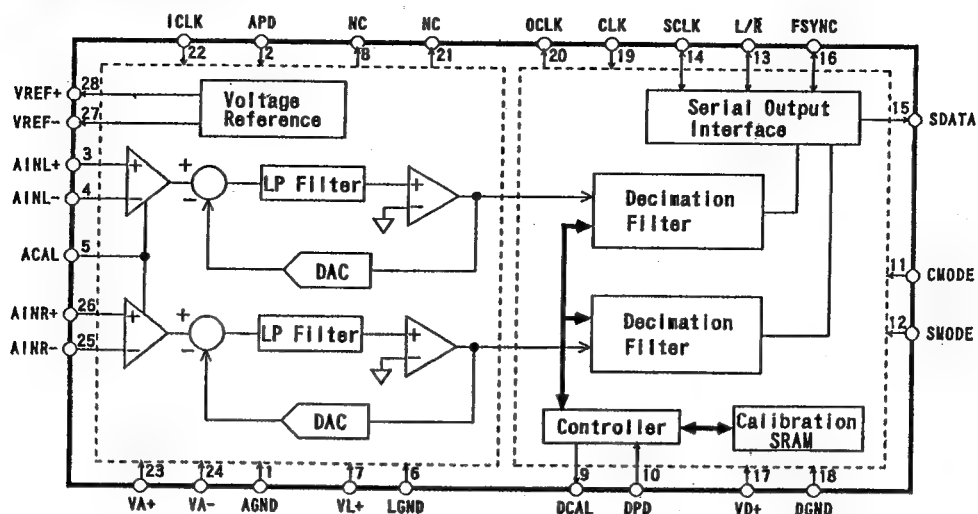
KEY IN CIN1
KEY IN CINO
SD IN
EMPHASIS IN
DIG. IR ERROR IN
SIG. STR. IN
PLS. ENC (A) IN
PUS. ENC (B) IN

K5 KEY IN (K5)
K4 KEY IN (K4)
K3 KEY IN (K3)
K2 KEY IN (K2)
K1 KEY IN (K1)
K0 KEY IN (K0)
V_{KK} -30V
Sa SEGMENT a/A1

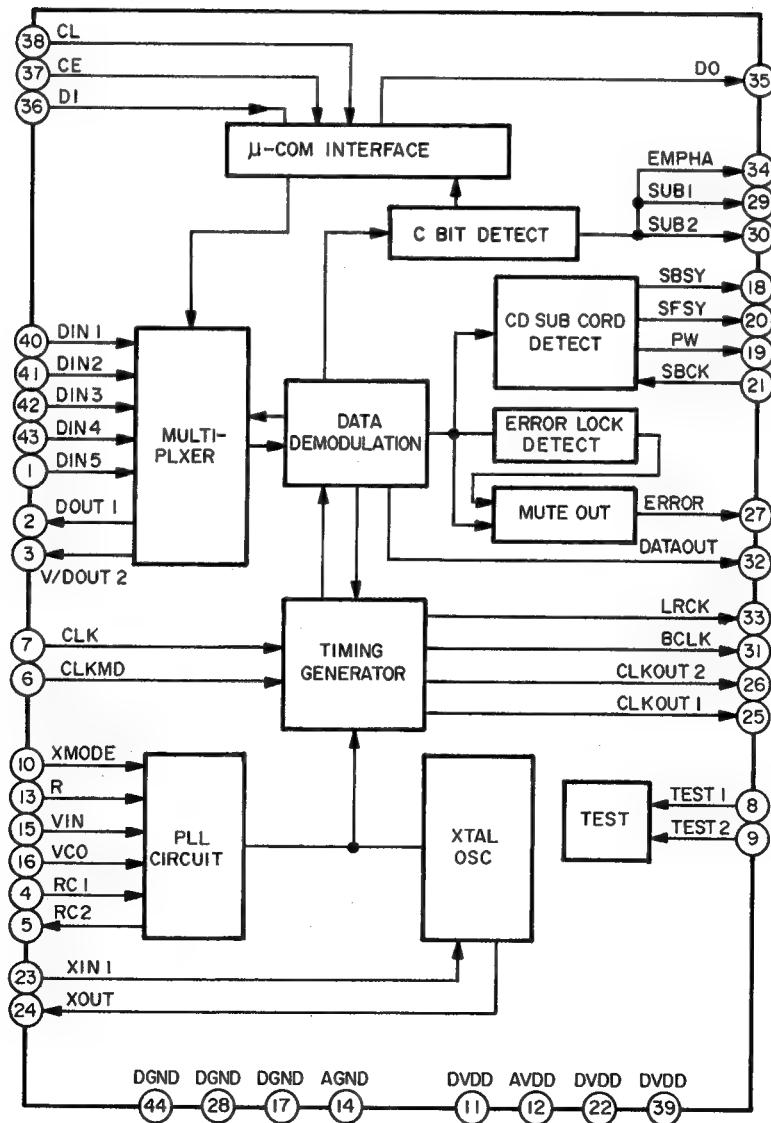


Q601 : LC83016JE
DIGITAL SIGNAL PROCESSOR

Q602 : LC83017JE
DIGITAL SIGNAL PROCESSOR

Q605 ~ Q607 : AK4320
DIGITAL ANALOGUE CONVERTER


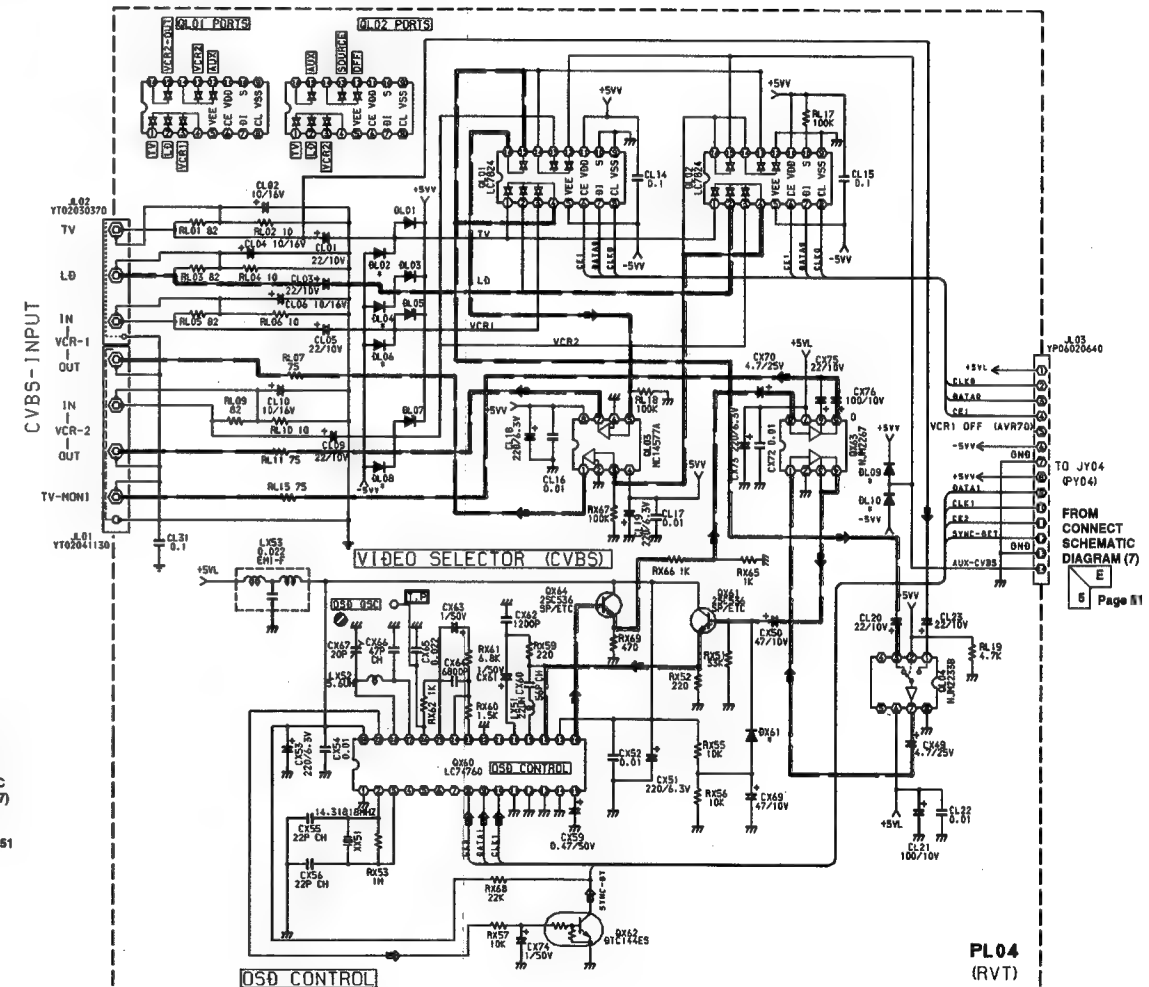
Q608 : AK5389
ANALOGUE DIGITAL CONVERTER



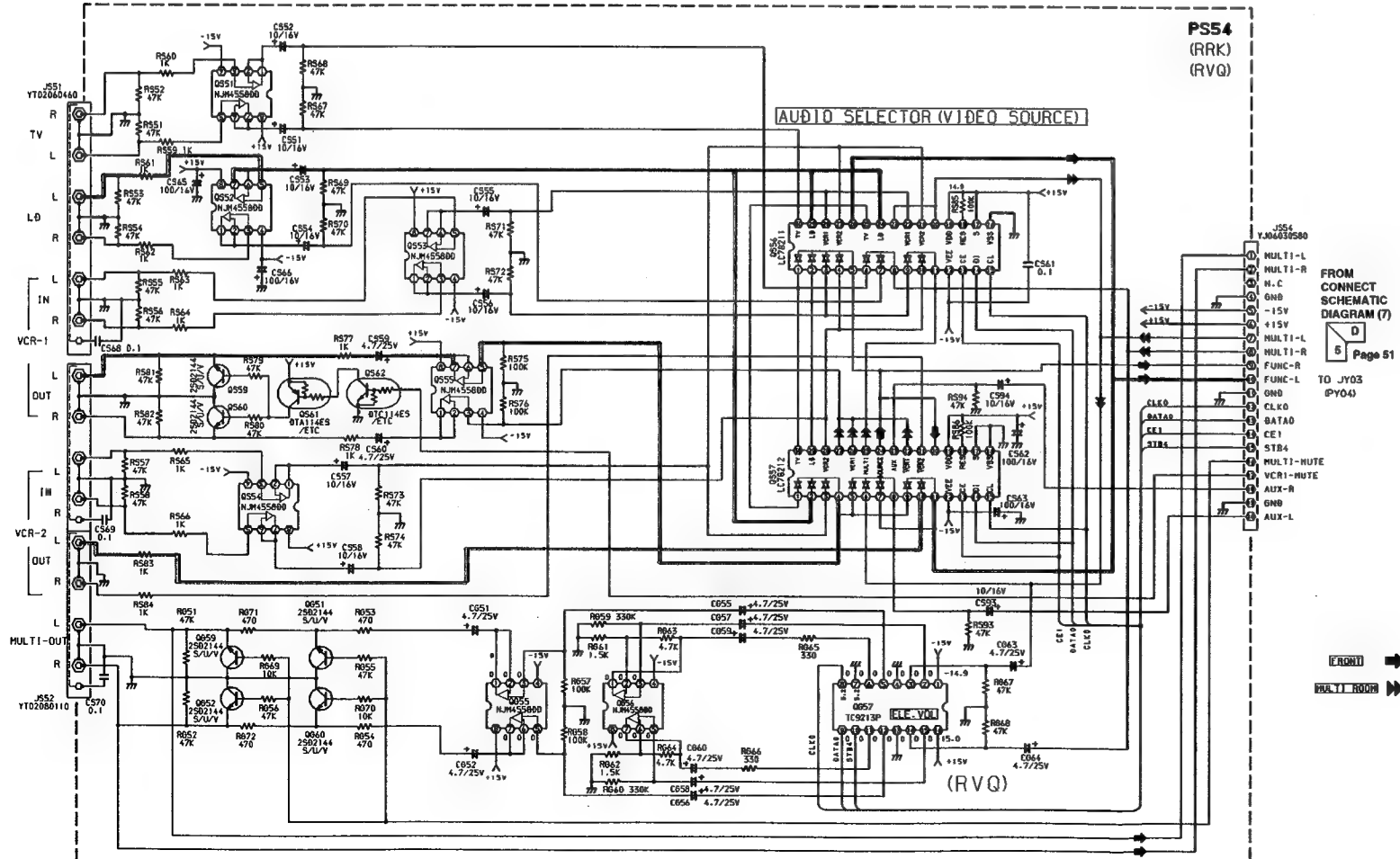
Q619 : LC8903Q
DIGITAL AUDIO INTERFACE



PS04-AUDIO FUNCTION

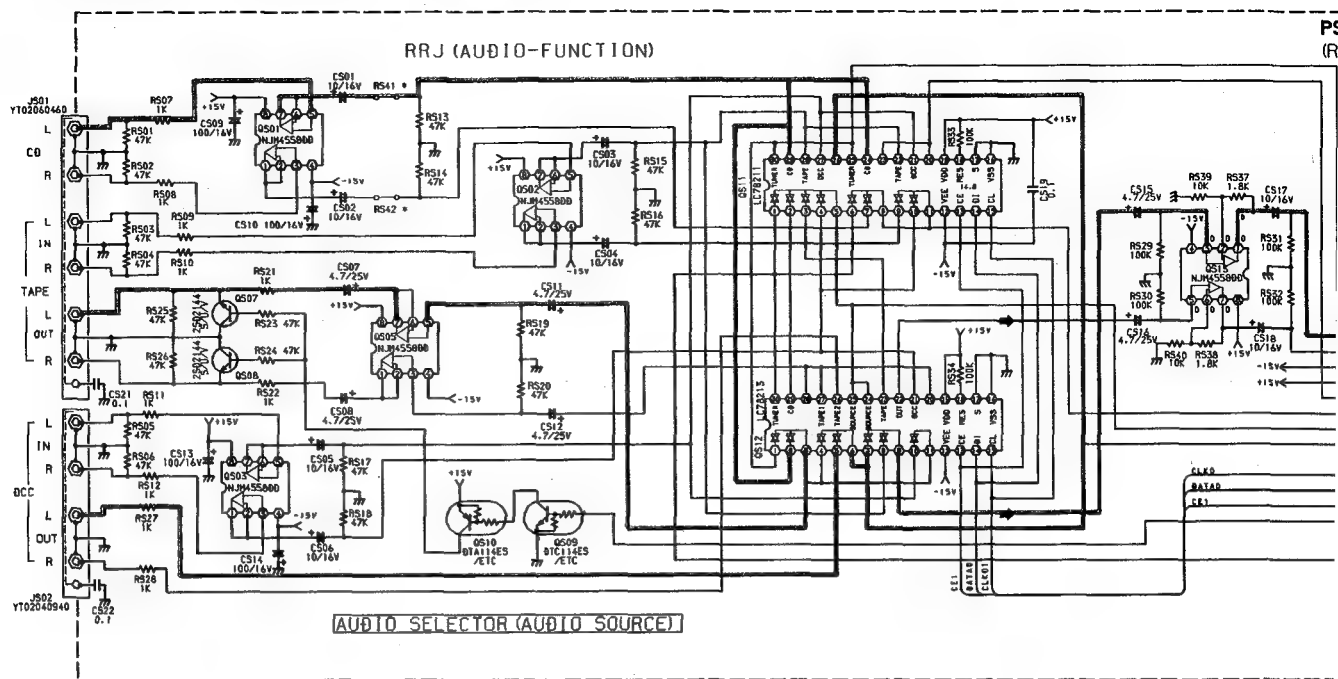


PS54
(RRK)
(RVQ)

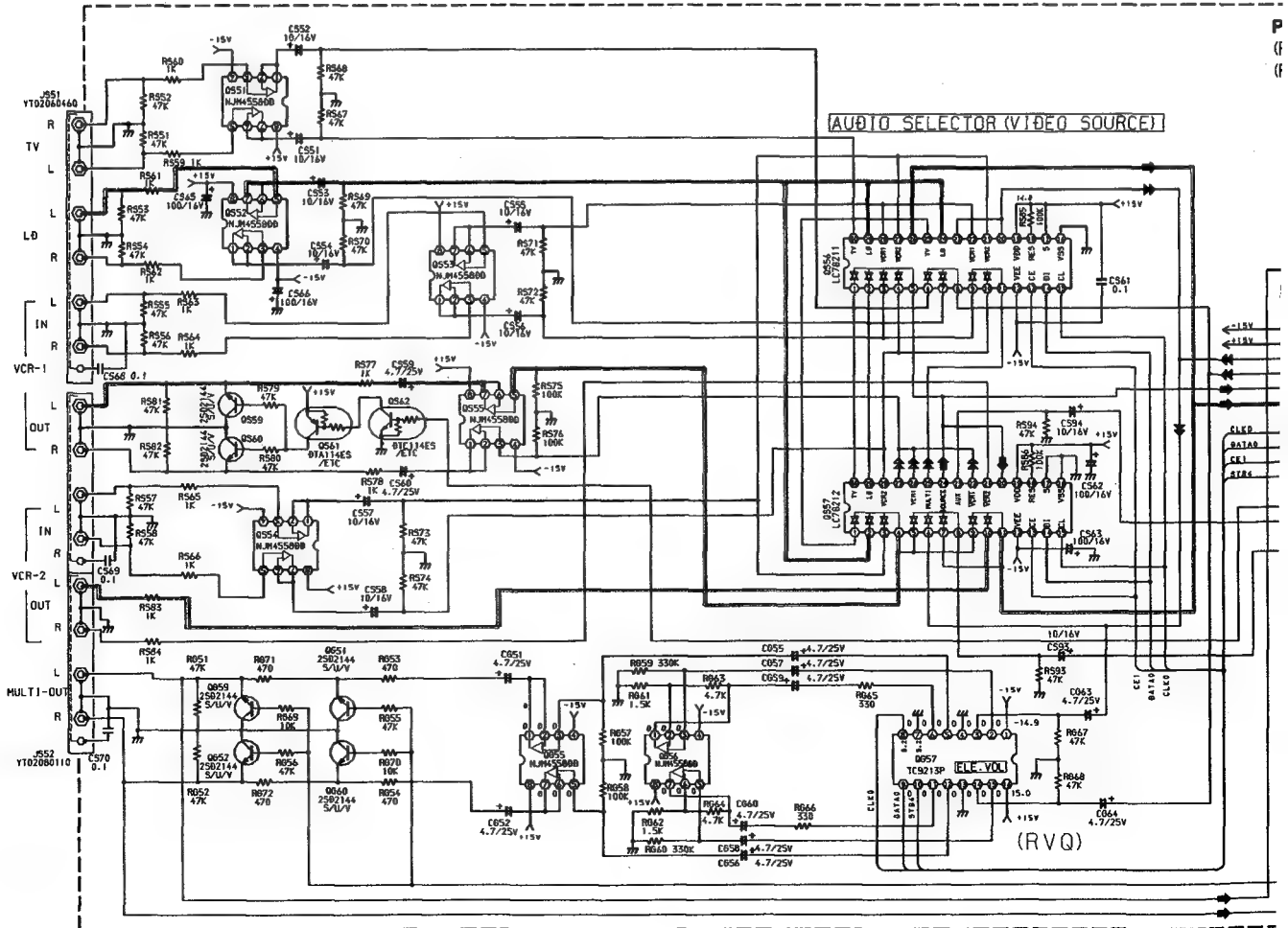


SCHEMATIC DIAGRAM (1) (BK) VERSION

PS04-AUDIO FUNCT



PS54-V-AUDIO FUNCTION



F

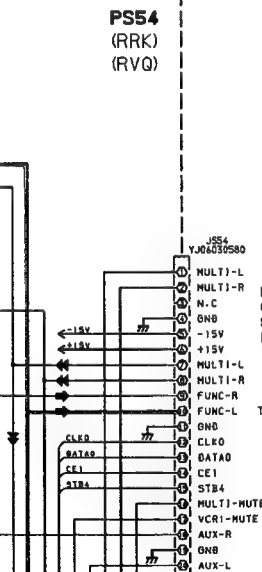
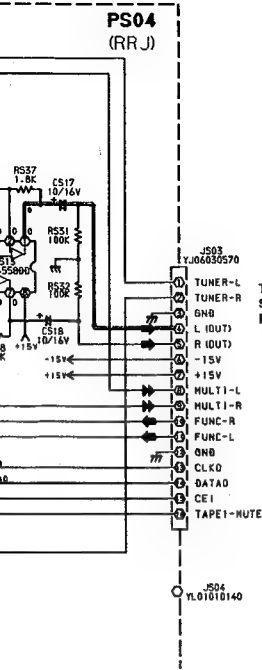
G

H

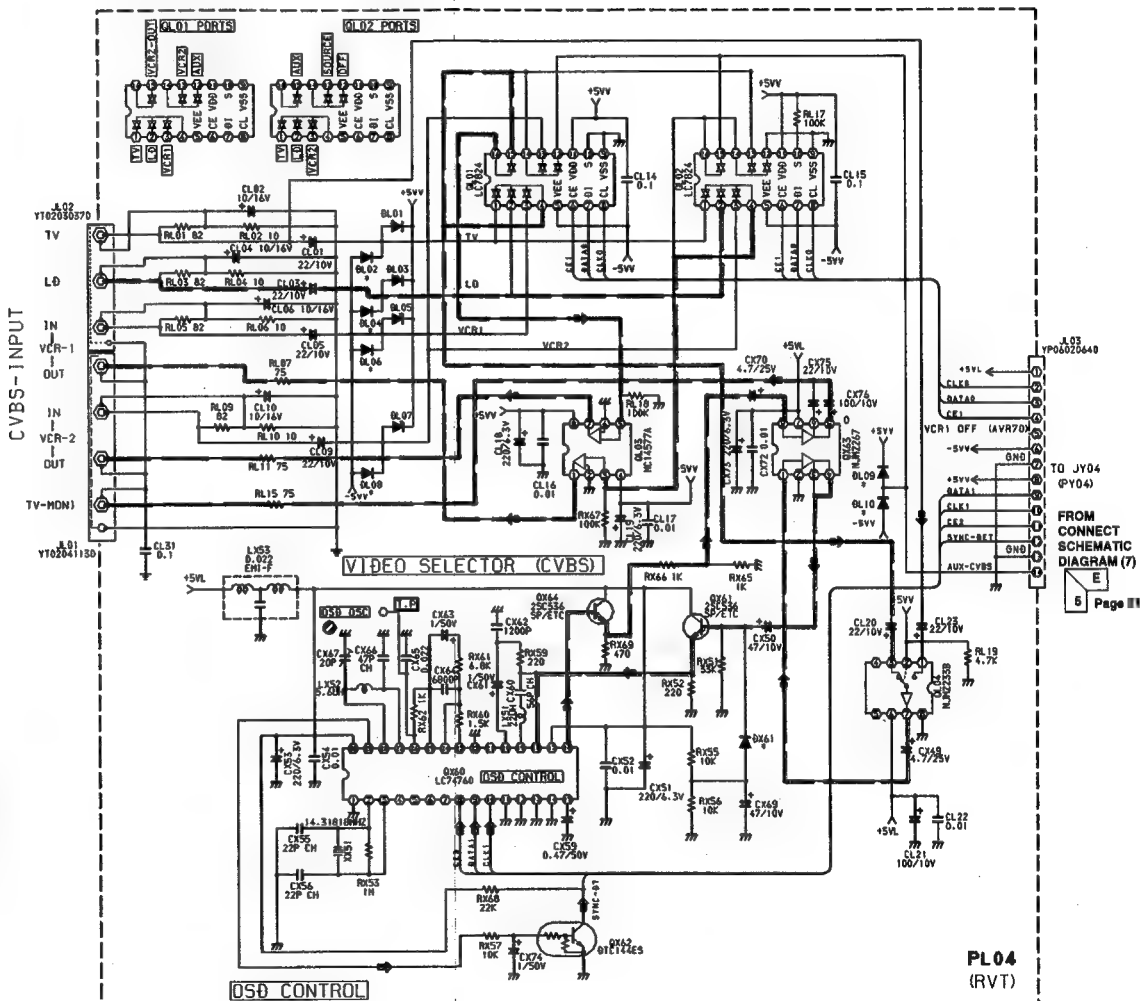
I

J

RADIO FUNCTION

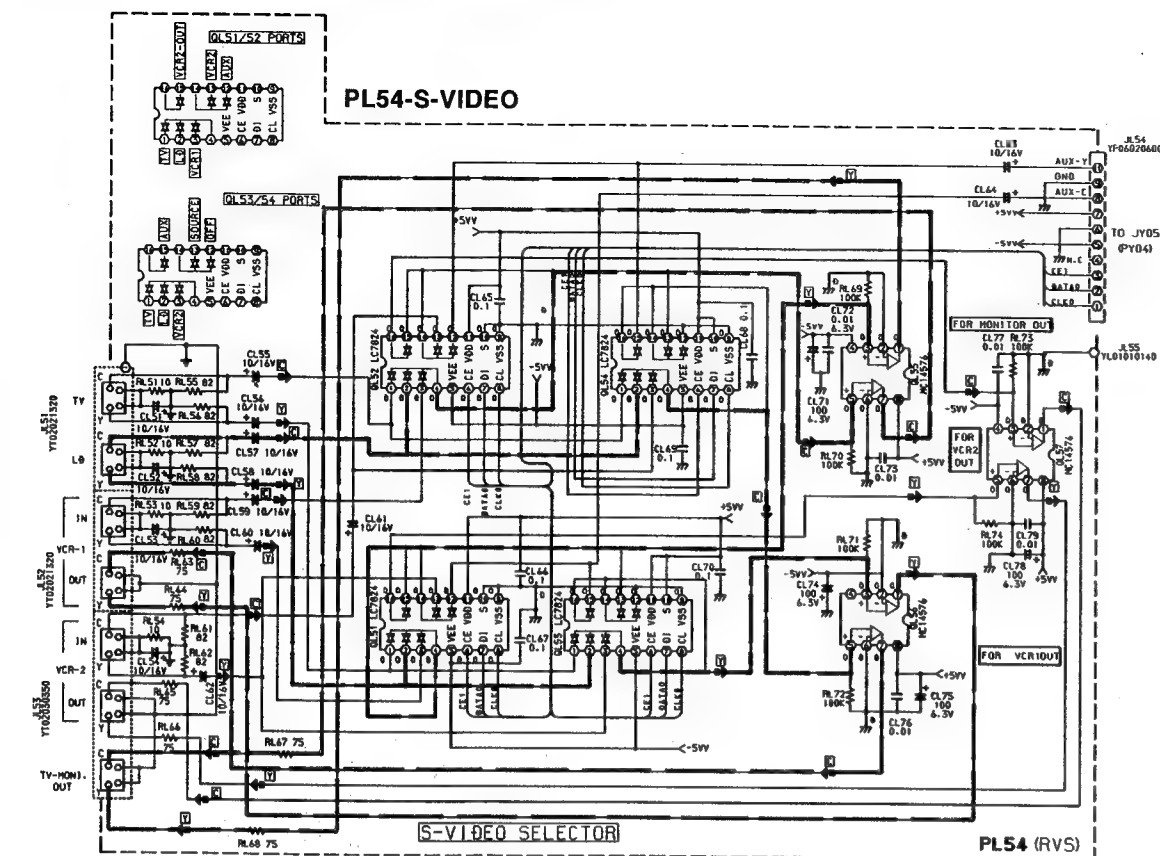


PL04-VIDEO SELECTOR

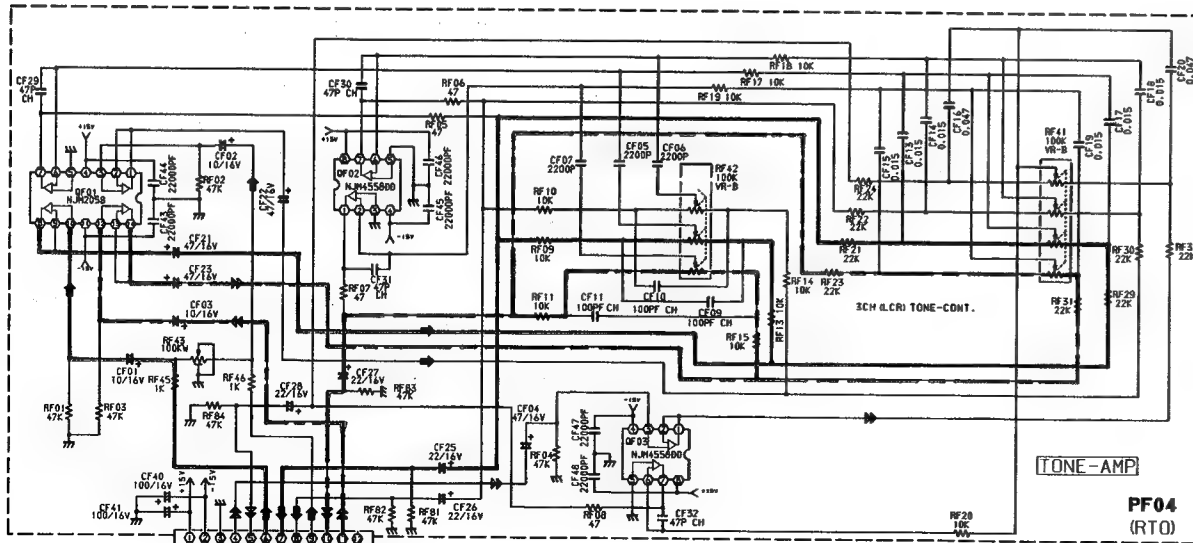


FRONT →
MULTI-ROOM →

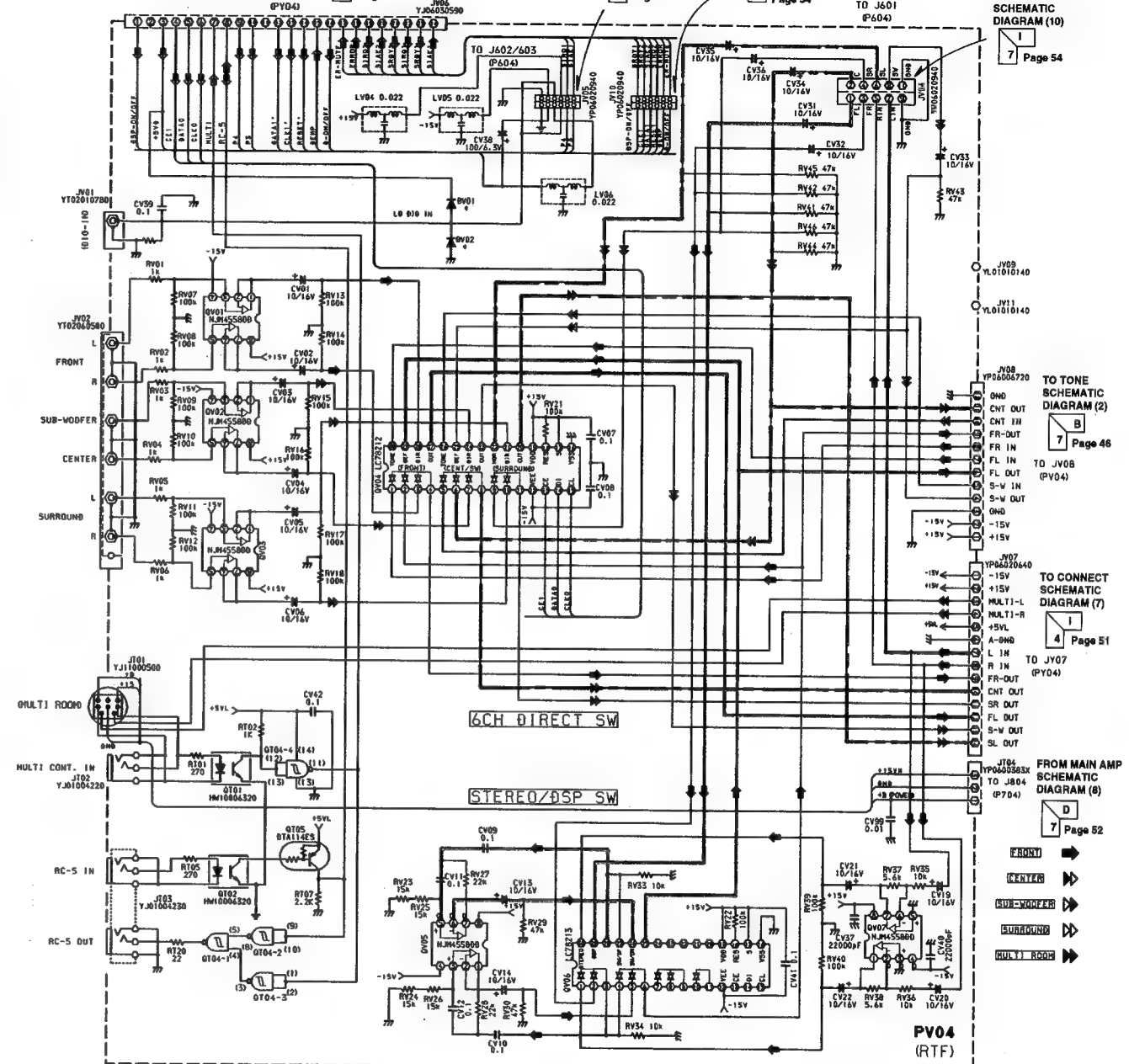
SCHEMATIC DIAGRAM (2) BK VERSION



PF04-TONE



PV04-DIRECT IN



TO JY08
(PV04)

FROM
DIRECT IN
SCHEMATIC
DIAGRAM (2)

3 Page 46

FROM
CONNECT
SCHEMATIC
DIAGRAM (7)

5 Page 51

FROM
CONNECT
SCHEMATIC
DIAGRAM (7)

2 Page 51

TO THX PRO LOGIC DSP
SCHEMATIC
DIAGRAM (10)

1 Page 54

TO THX PRO LOGIC DSP
SCHEMATIC
DIAGRAM (10)

1 Page 54

FROM
THX PRO LOGIC
SCHEMATIC
DIAGRAM (10)

7 Page 54

TO TONE
SCHEMATIC
DIAGRAM (2)

7 Page 46

TO CONNECT
SCHEMATIC
DIAGRAM (7)

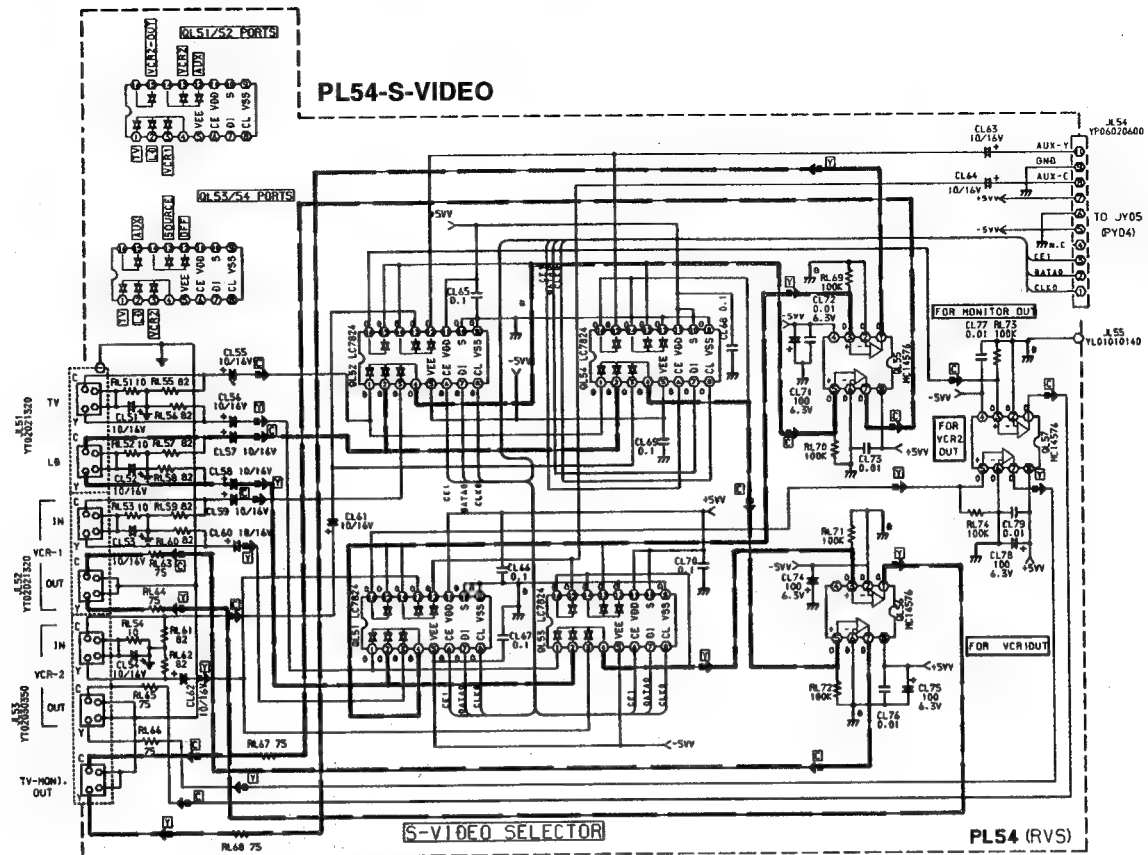
4 Page 51

FROM MAIN AMP
SCHEMATIC
DIAGRAM (8)

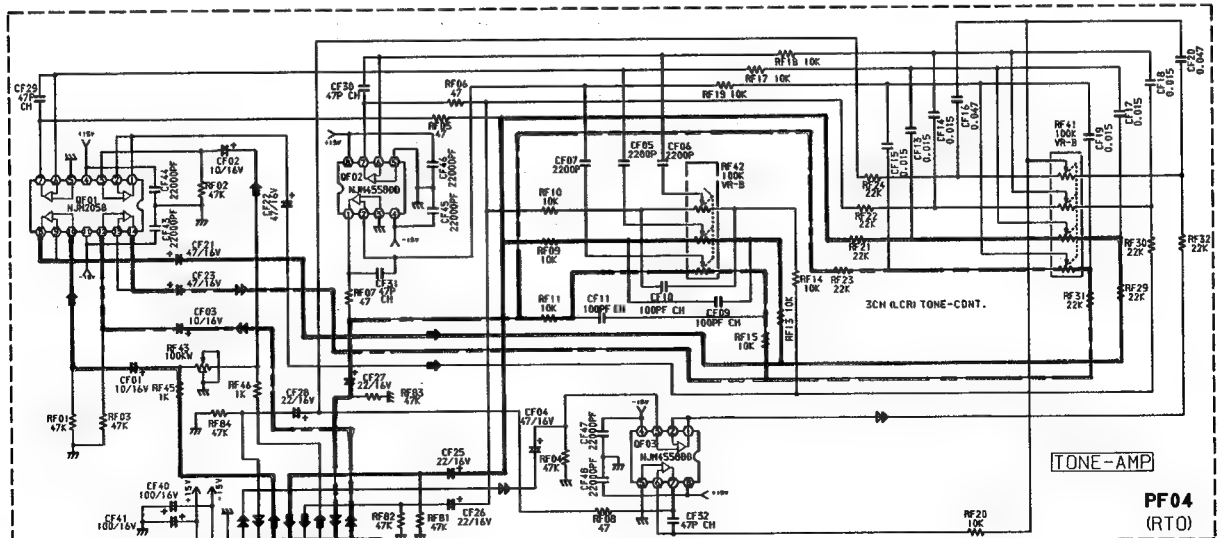
7 Page 52

FRONT
CENTER
SUB-WOOFER
SURROUND
MULTI ROOM

SCHEMATIC DIAGRAM (2) BK VERSION



PF04-TONE



F

G

H

I

J

PV04-DIRECT IN

TO JY08
(P704)FROM
CONNECT
SCHEMATIC
DIAGRAM (7)

2 Page 51

TO THX PRO LOGIC DSP
SCHEMATIC
DIAGRAM (10)

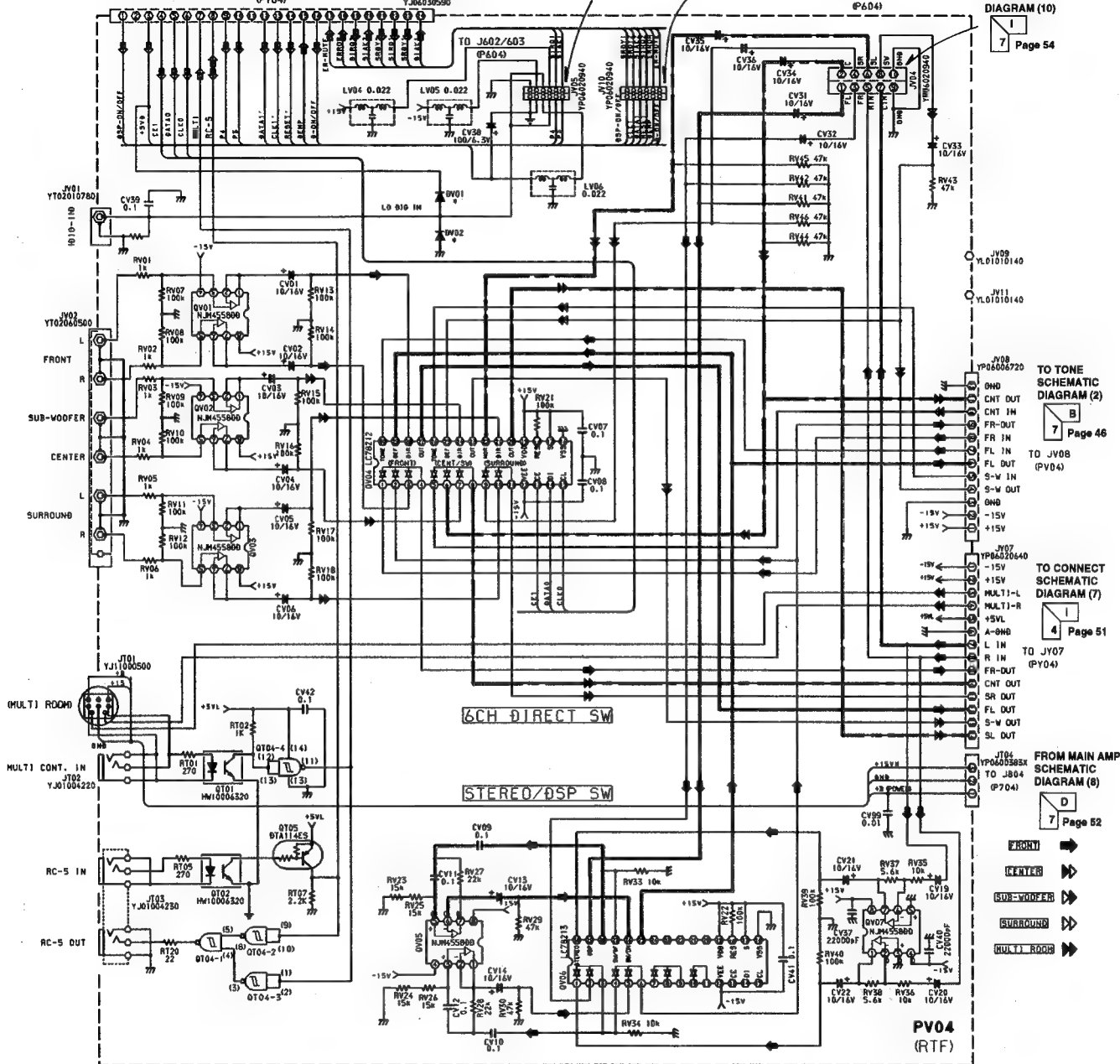
1 Page 54

TO THX PRO LOGIC DSP
SCHEMATIC
DIAGRAM (10)

1 Page 54

TO J601
(P604)FROM
THX PRO LOGIC
SCHEMATIC
DIAGRAM (10)

1 Page 54

TO TONE
SCHEMATIC
DIAGRAM (2)

7 Page 46

TO CONNECT
SCHEMATIC
DIAGRAM (7)

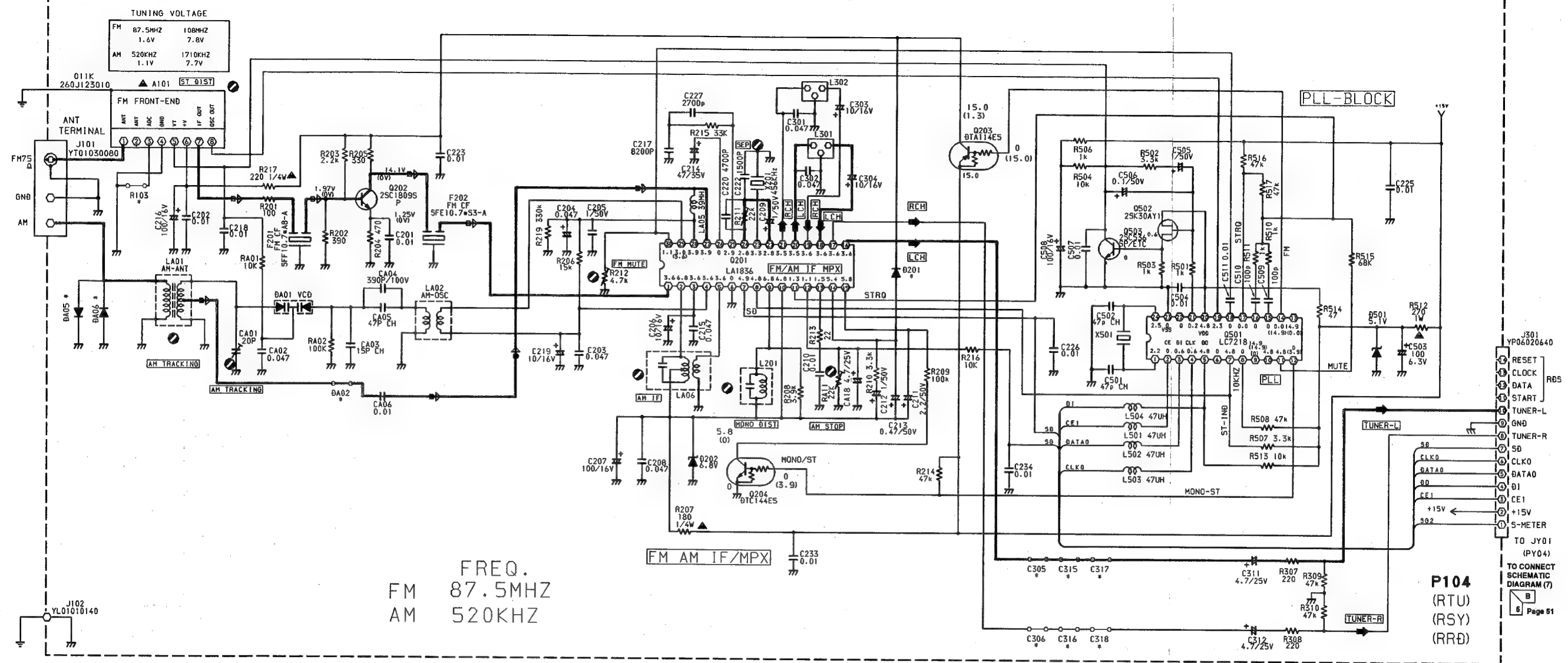
4 Page 51

FROM MAIN AMP
SCHEMATIC
DIAGRAM (8)

7 Page 52

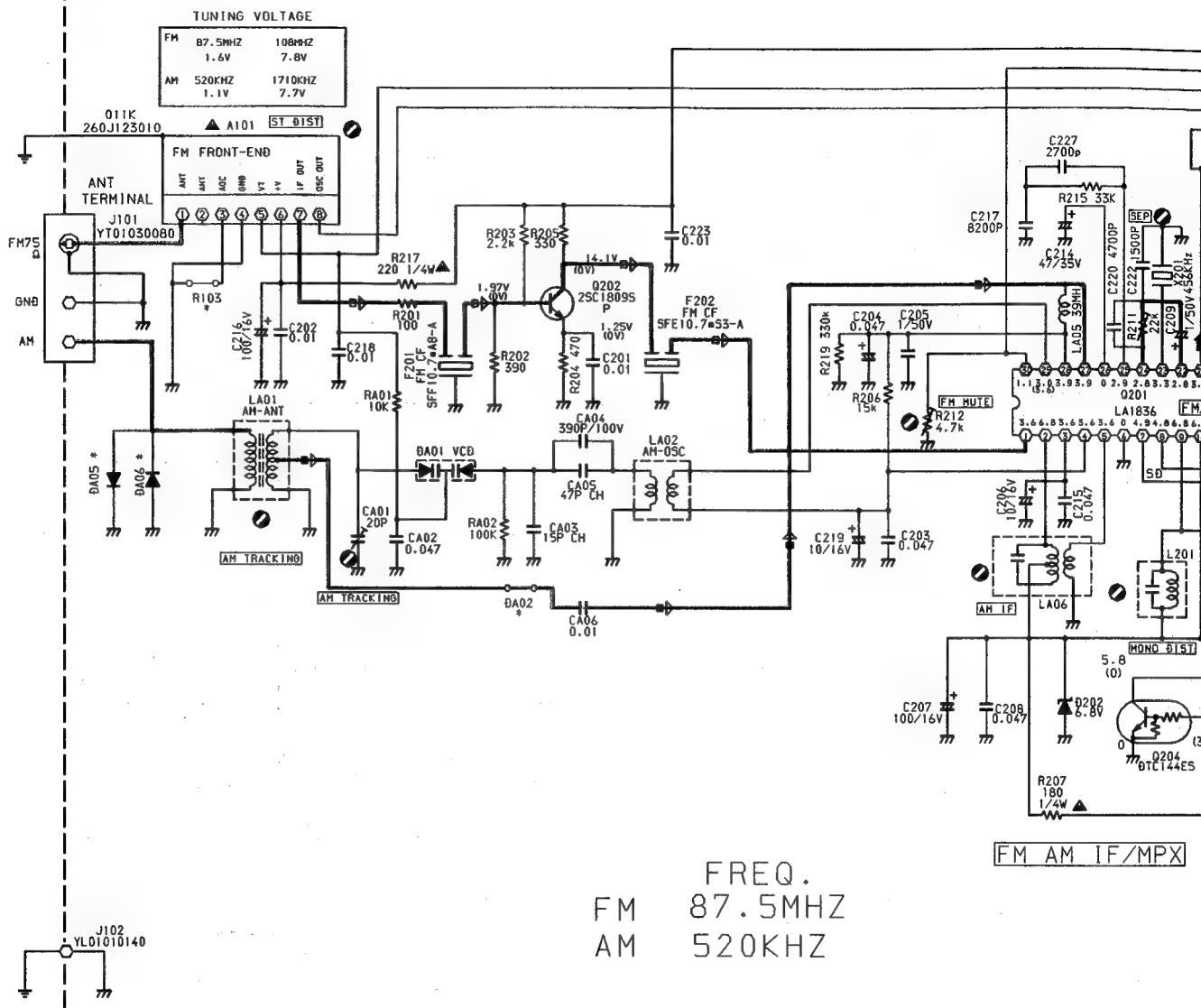
FRONT
CENTER
SUB-WOOFER
SURROUND
MULTI ROOMPV04
(RTF)

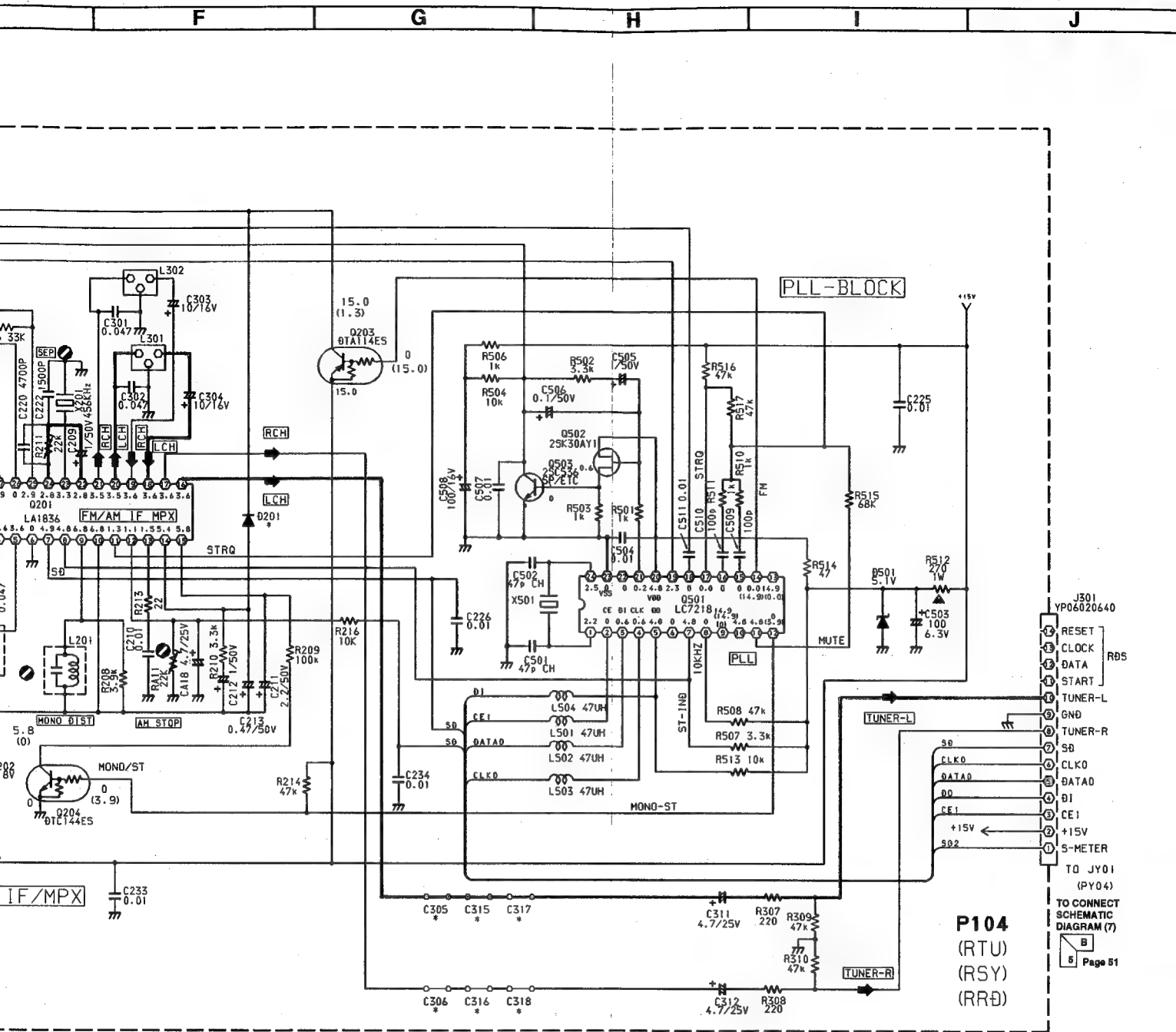
P104-TUNER



SCHEMATIC DIAGRAM (3) BK VERSION

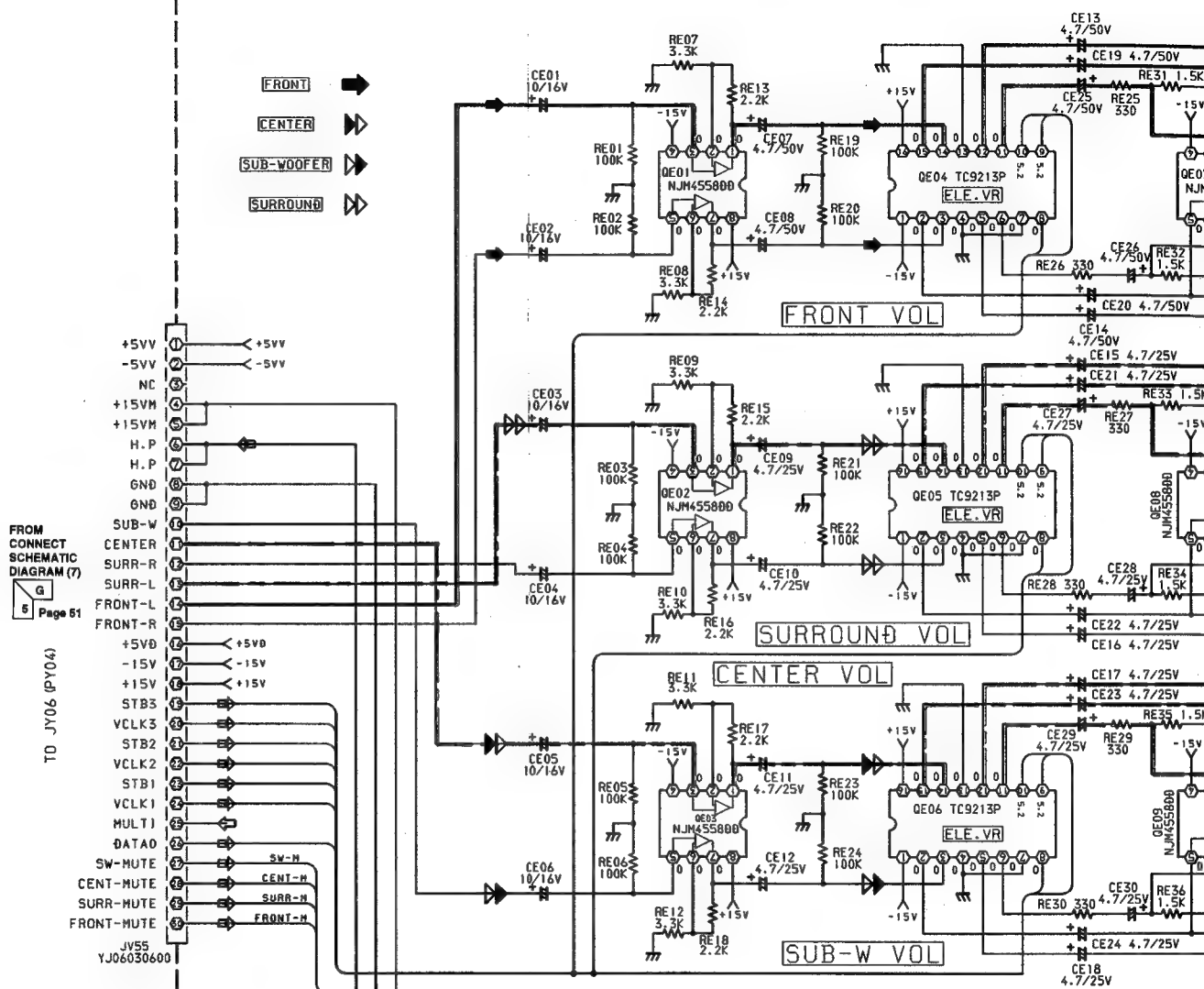
P104-TUNER





SCHEMATIC DIAGRAM (4) BK VERSION

PE04-ELE. VOL



F

G

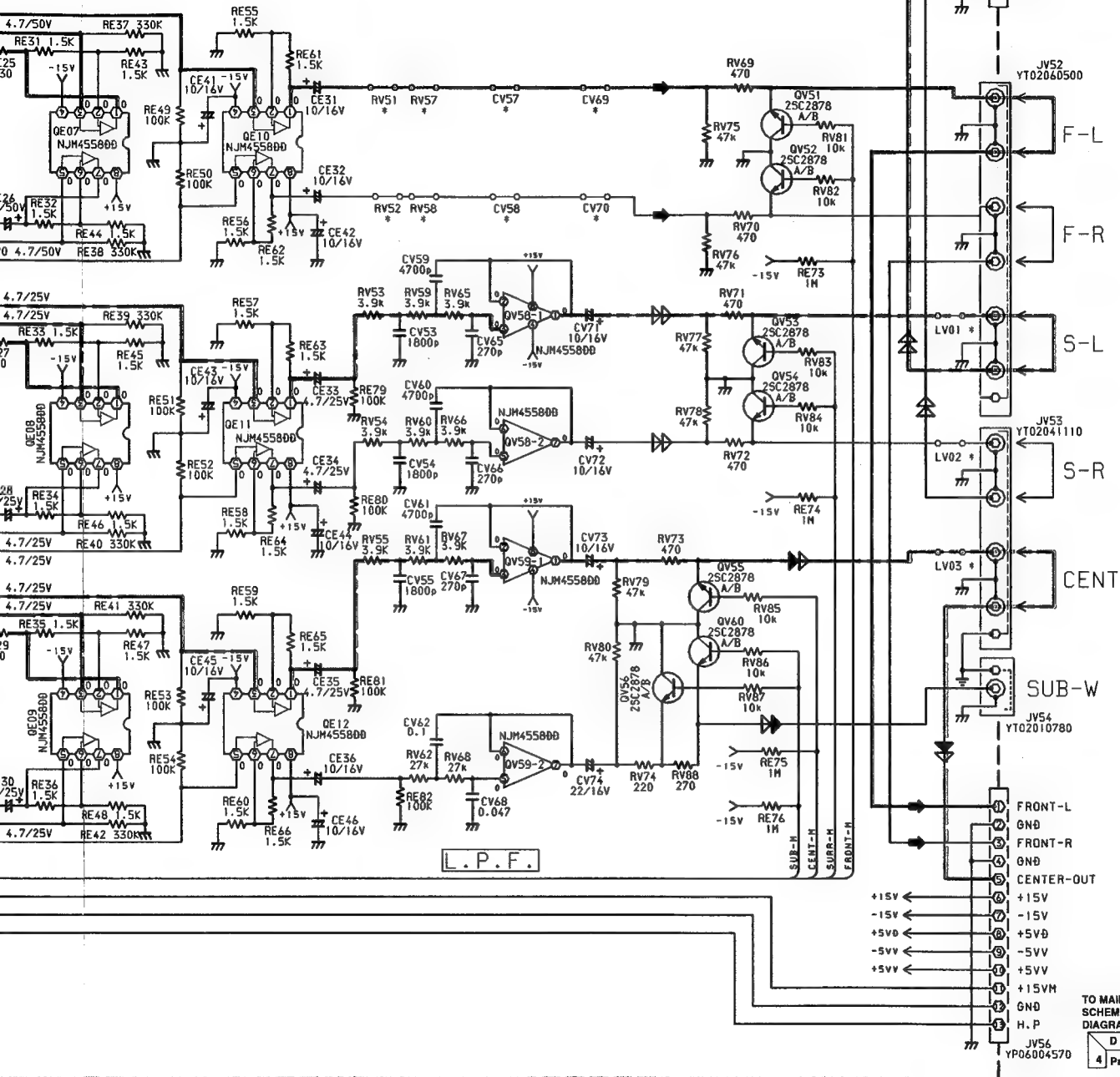
H

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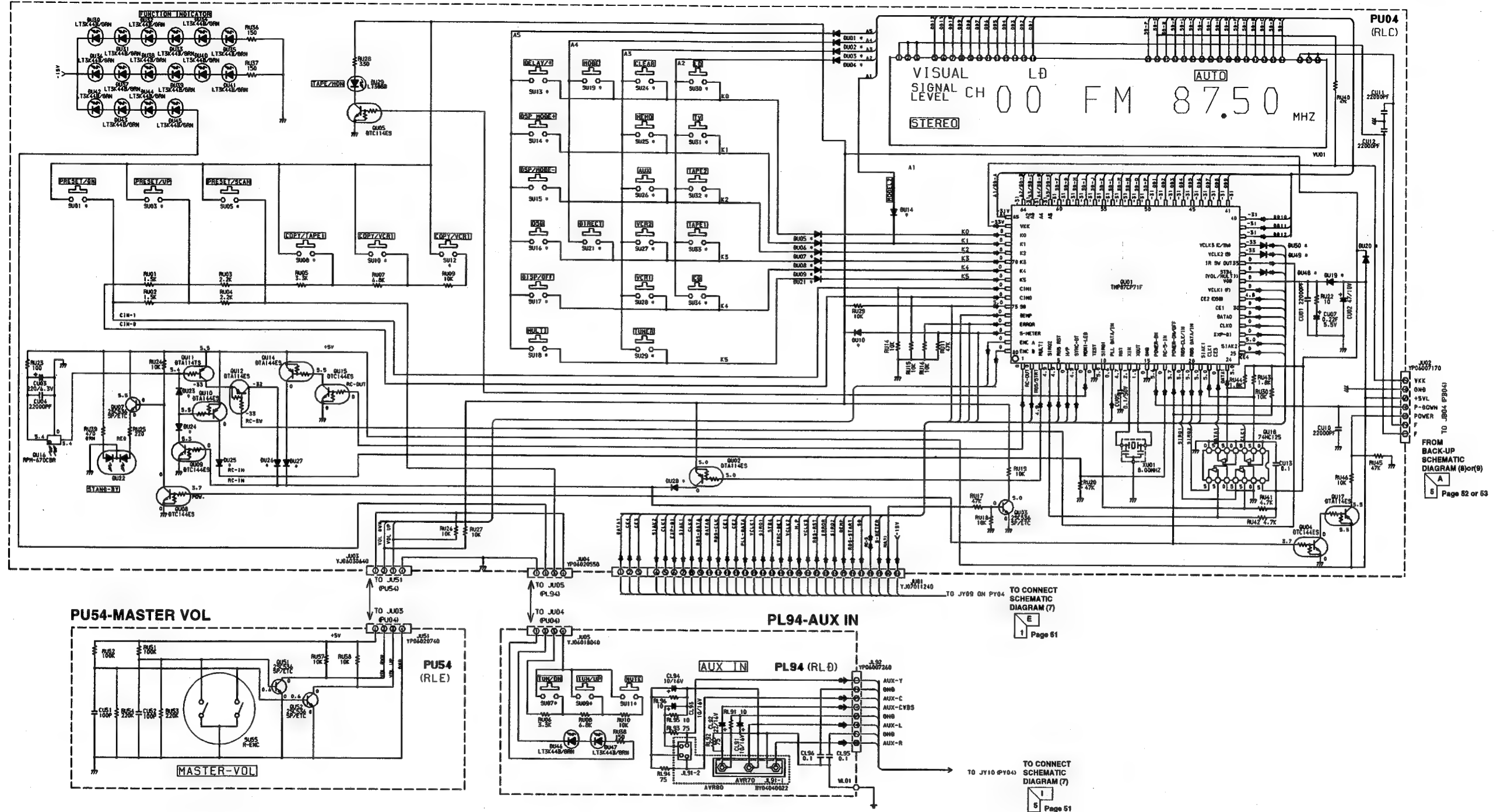
TO SURROUND
AMP
SCHEMATIC
DIAGRAM (8) or (9)
Page 52 or 53
TO JP01 (PP04)

PE04
(RVR)
(RTE)

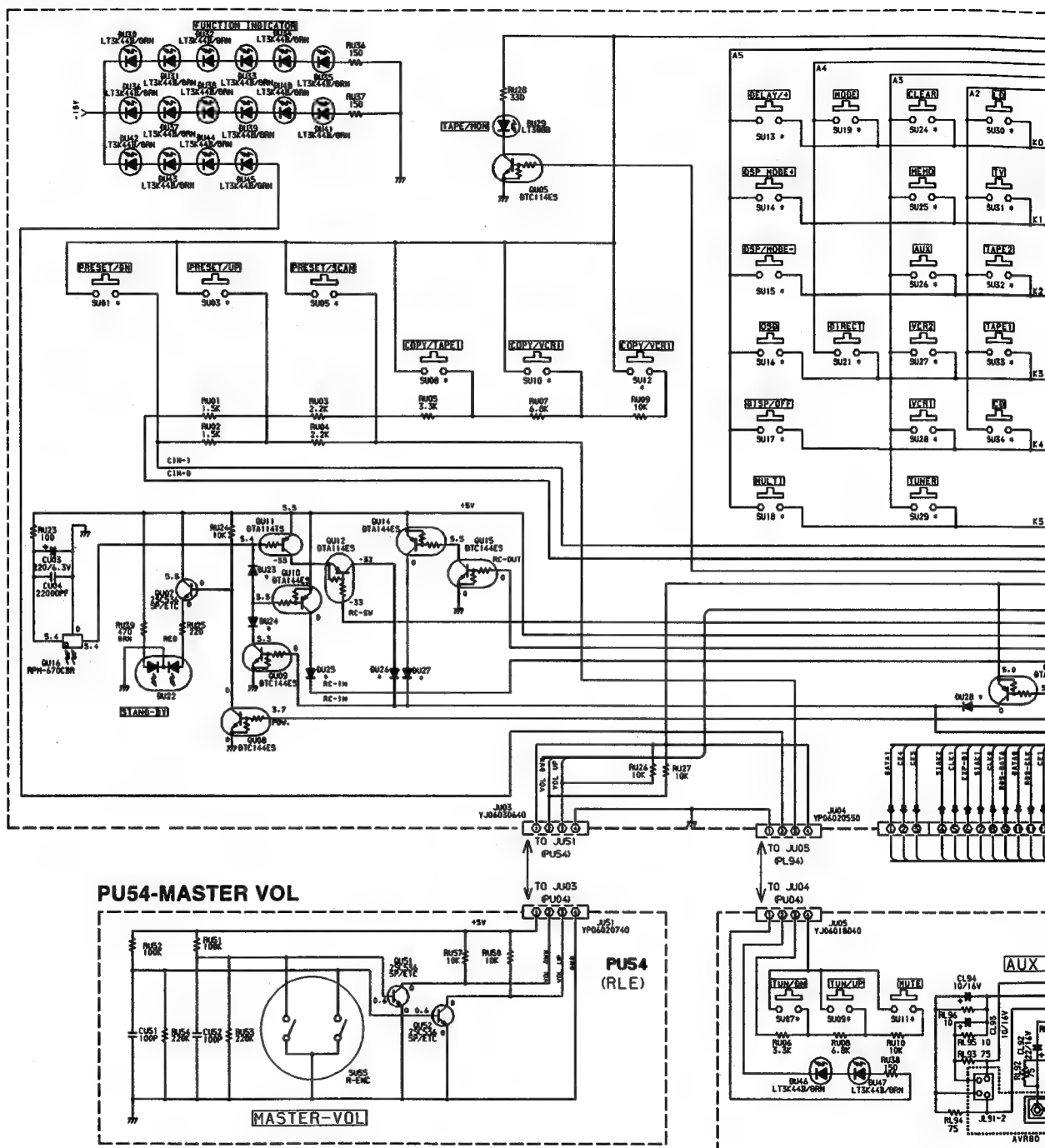


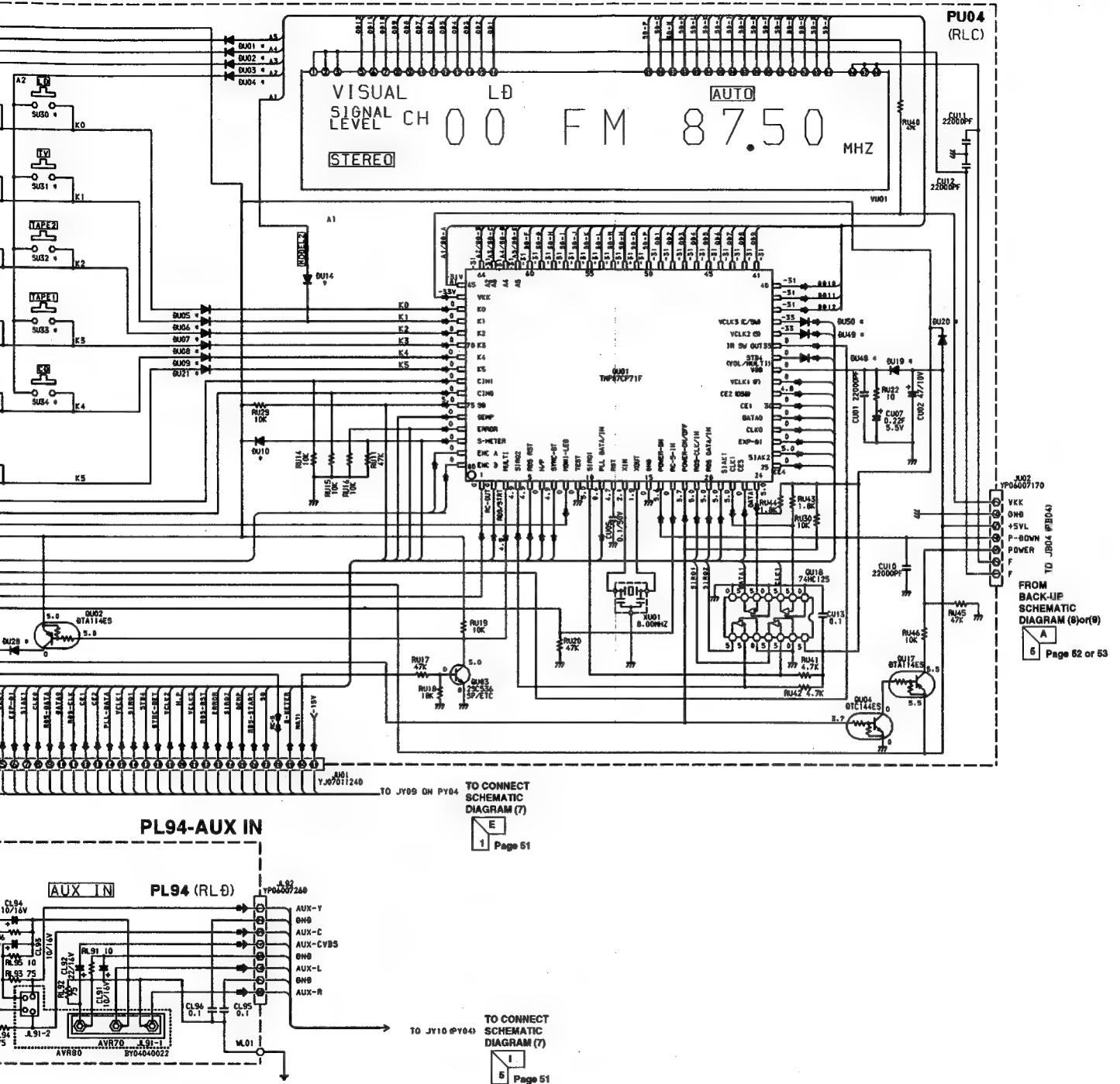
TO MAIN AMP
SCHEMATIC
DIAGRAM (8) or (9)
Page 52 or 53

PU04-FRONT (AVR80) ONLY

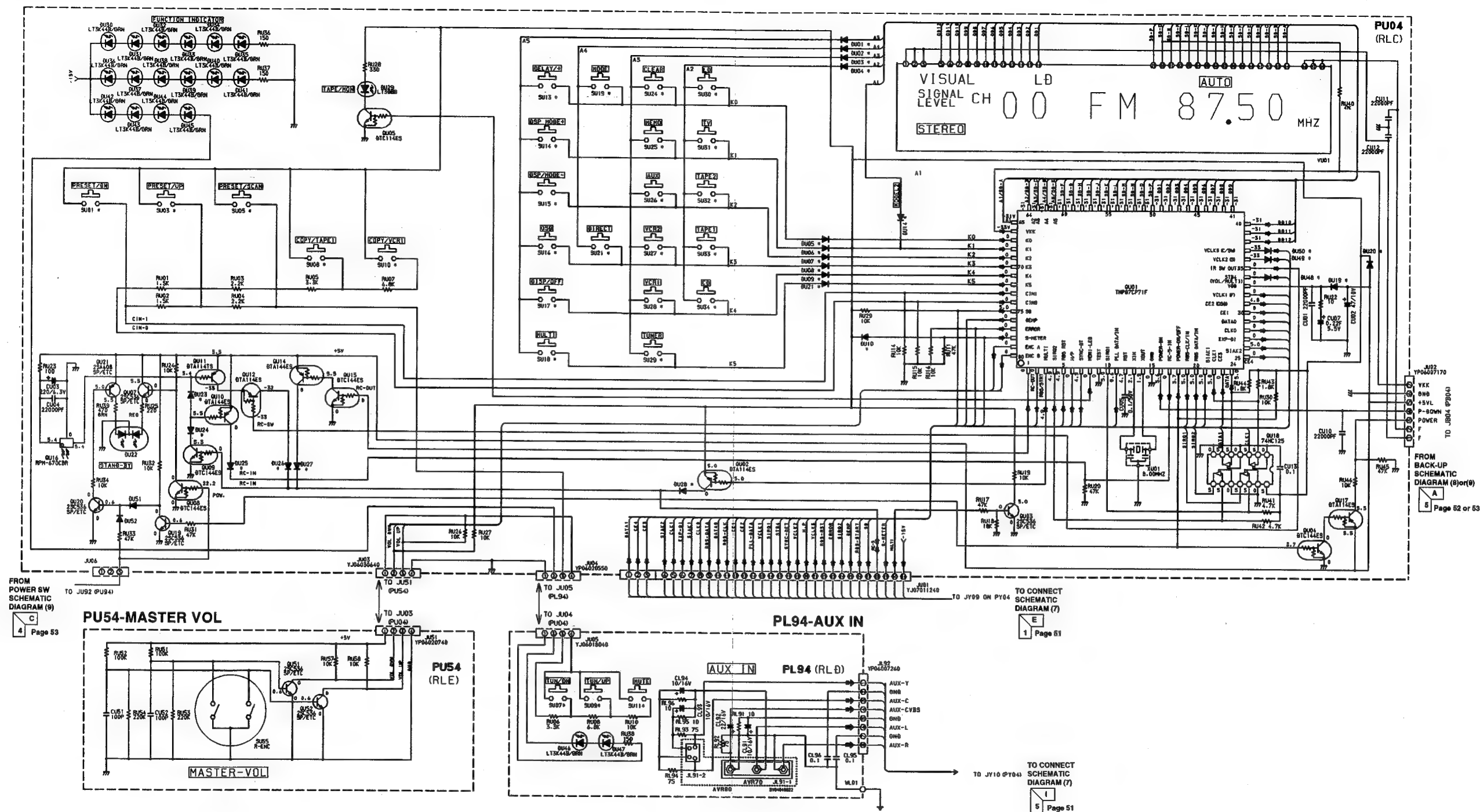


PU04-FRONT (AVR80) ONLY





SCHEMATIC DIAGRAM (6) BK VERSION
PU04-FRONT (AVR80MK II) ONLY

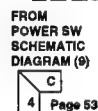


FROM BACK-UP
SCHEMATIC
DIAGRAM (8) or (9)
Page 52 or 53

Page 51

Page 51

PU04-FRONT (AVR80MK II) ONLY



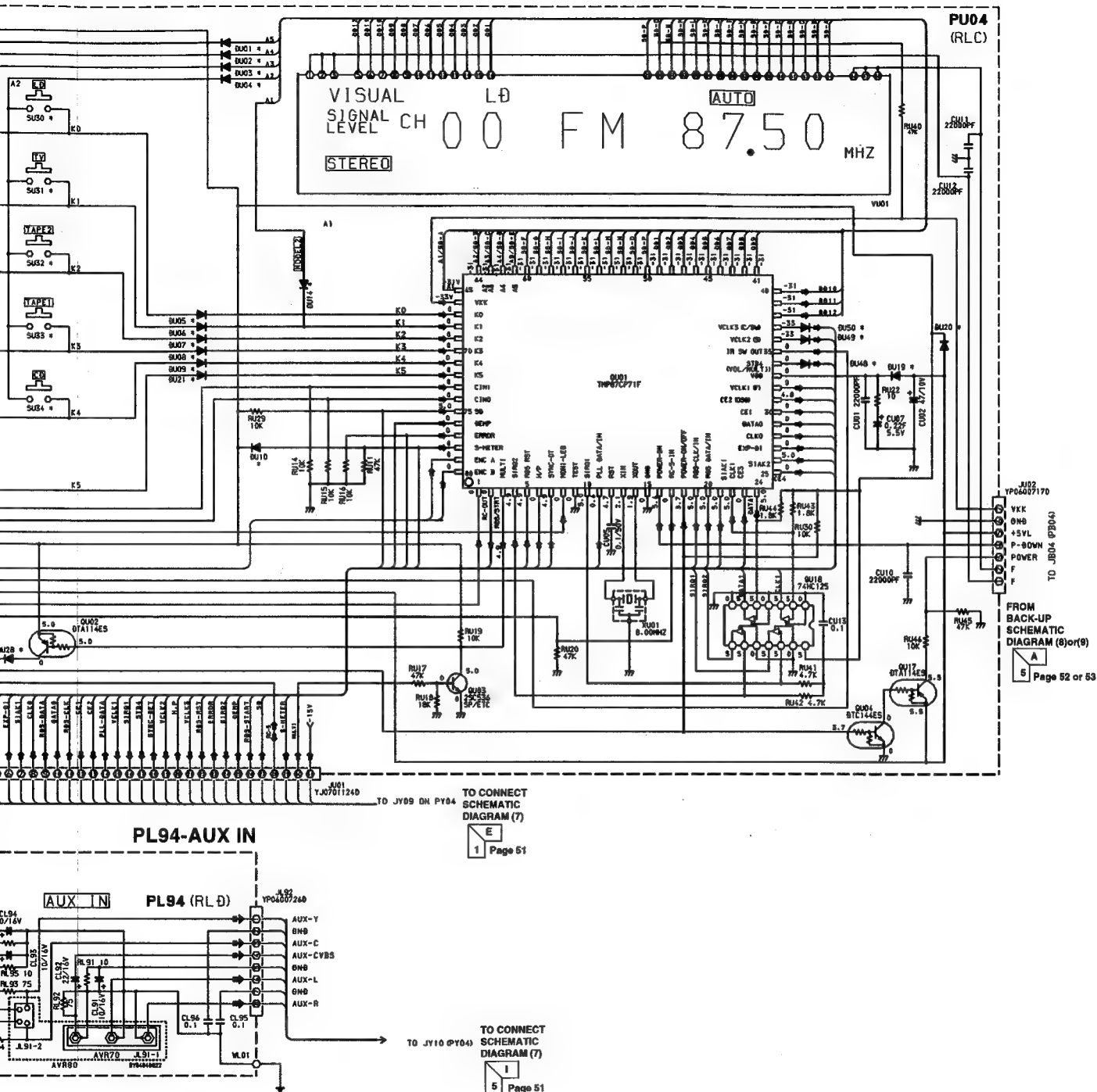
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SCHEMATIC DIAGRAM (7) BK VERSION

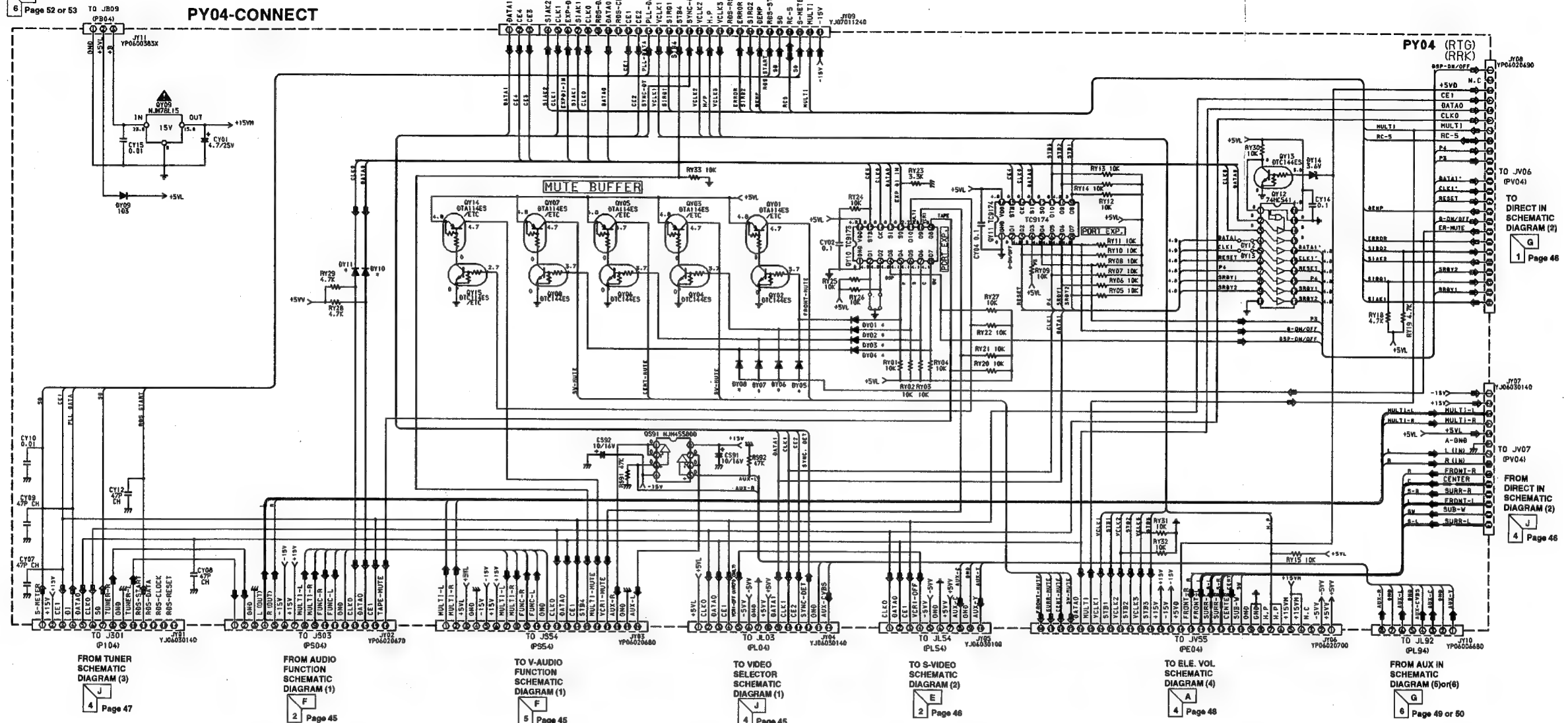
FROM
BACK-UP
SCHEMATIC
DIAGRAM (8) or (9)

6 Page 52 or 53

PY04-CONNECT

FROM FRONT
SCHEMATIC
DIAGRAM (5) or (6)

5 Page 49 or 50 TO JU01 (PU04)



SCHEMATIC DIAGRAM (7) BK VERSION

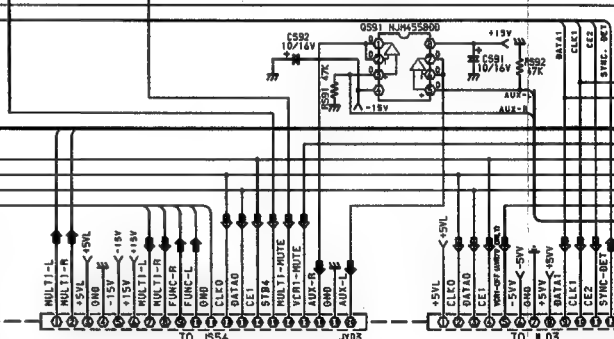
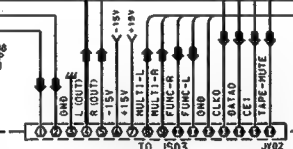
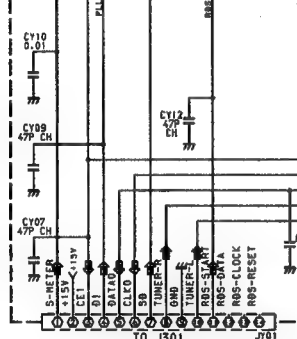
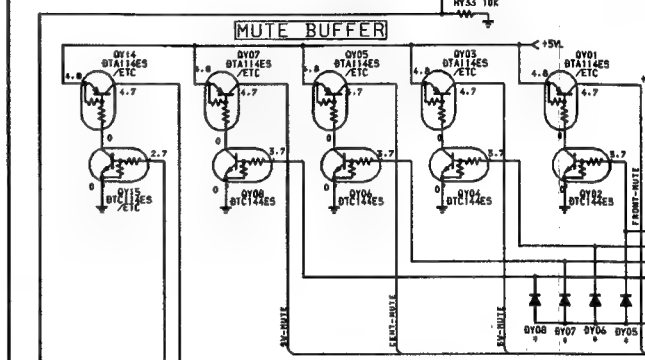
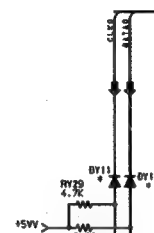
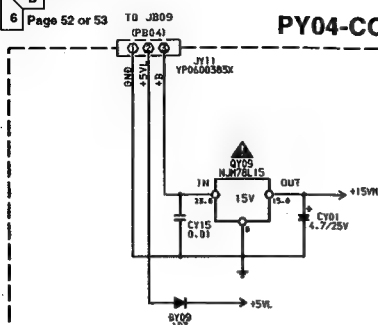
FROM
BACK-UP
SCHEMATIC
DIAGRAM (8) or (9)

6 Page 52 or 53

PY04-CONNECT

FROM FRONT
SCHEMATIC
DIAGRAM (5) or (6)

8 Page 49 or 50 TO JU01
(P004)



FROM TUNER
SCHEMATIC
DIAGRAM (3)

4 Page 47

FROM AUDIO
FUNCTION
SCHEMATIC
DIAGRAM (1)

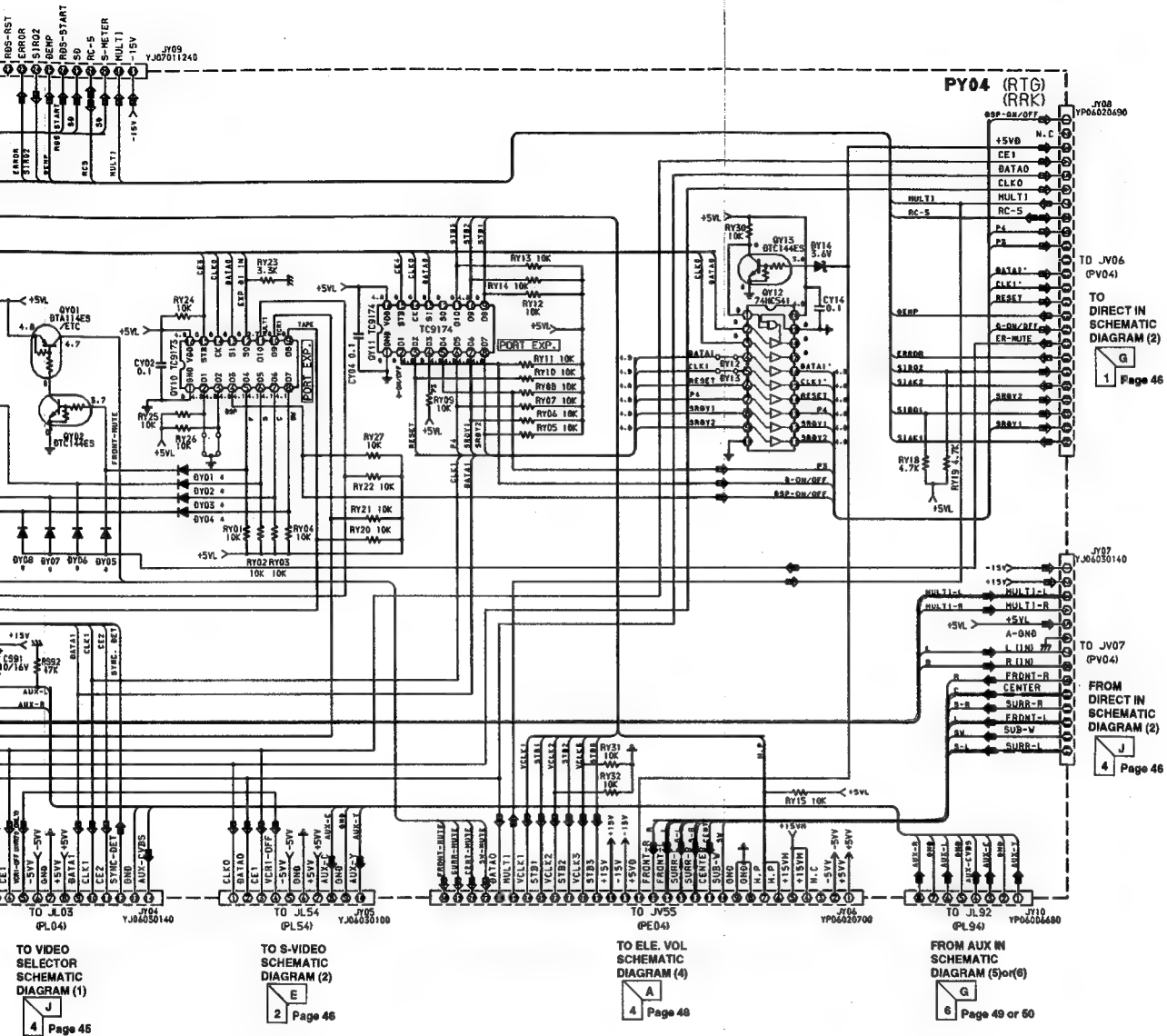
2 Page 45

TO V-AUDIO
FUNCTION
SCHEMATIC
DIAGRAM (1)

5 Page 45

TO VIDEO
SELECTOR
SCHEMATIC
DIAGRAM (1)

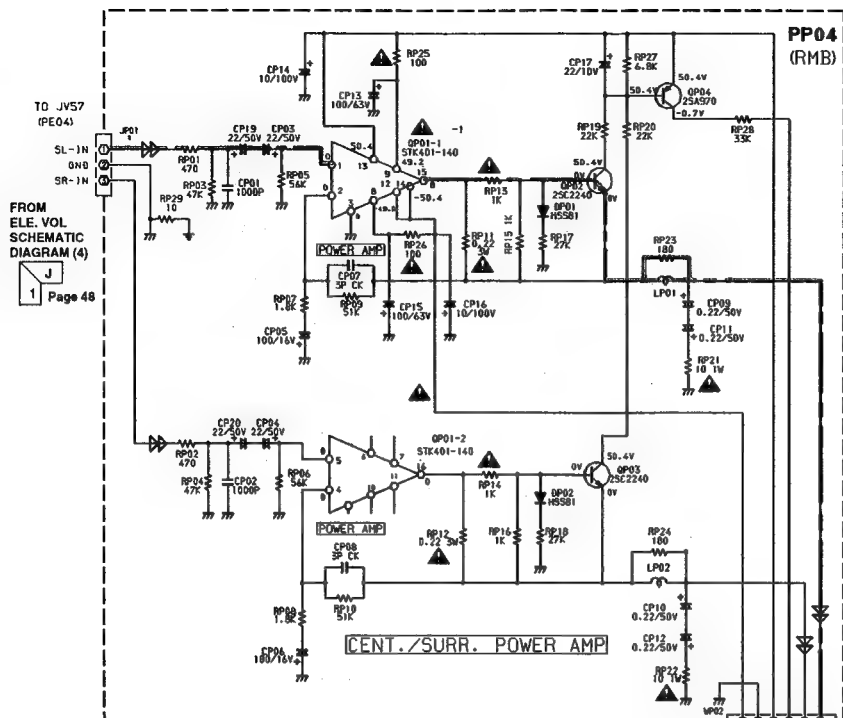
4 Page 45



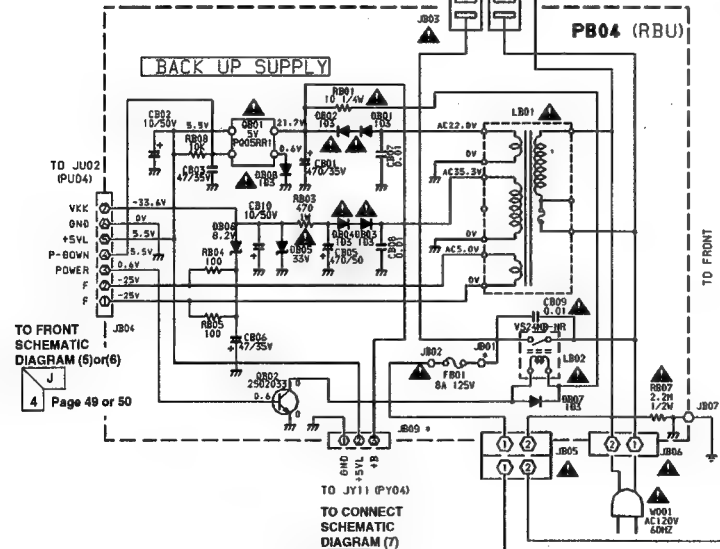
SCHEMATIC DIAGRAM (8) BK VERSION

P704-MAIN AMP (AVR80)

PP04-SURROUND AMP

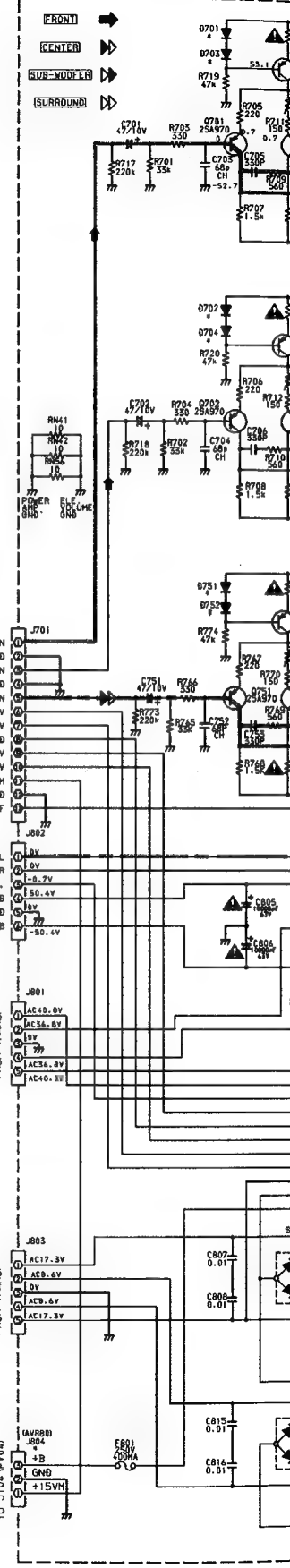


PB04-BACK-UP (AVR80) ONLY

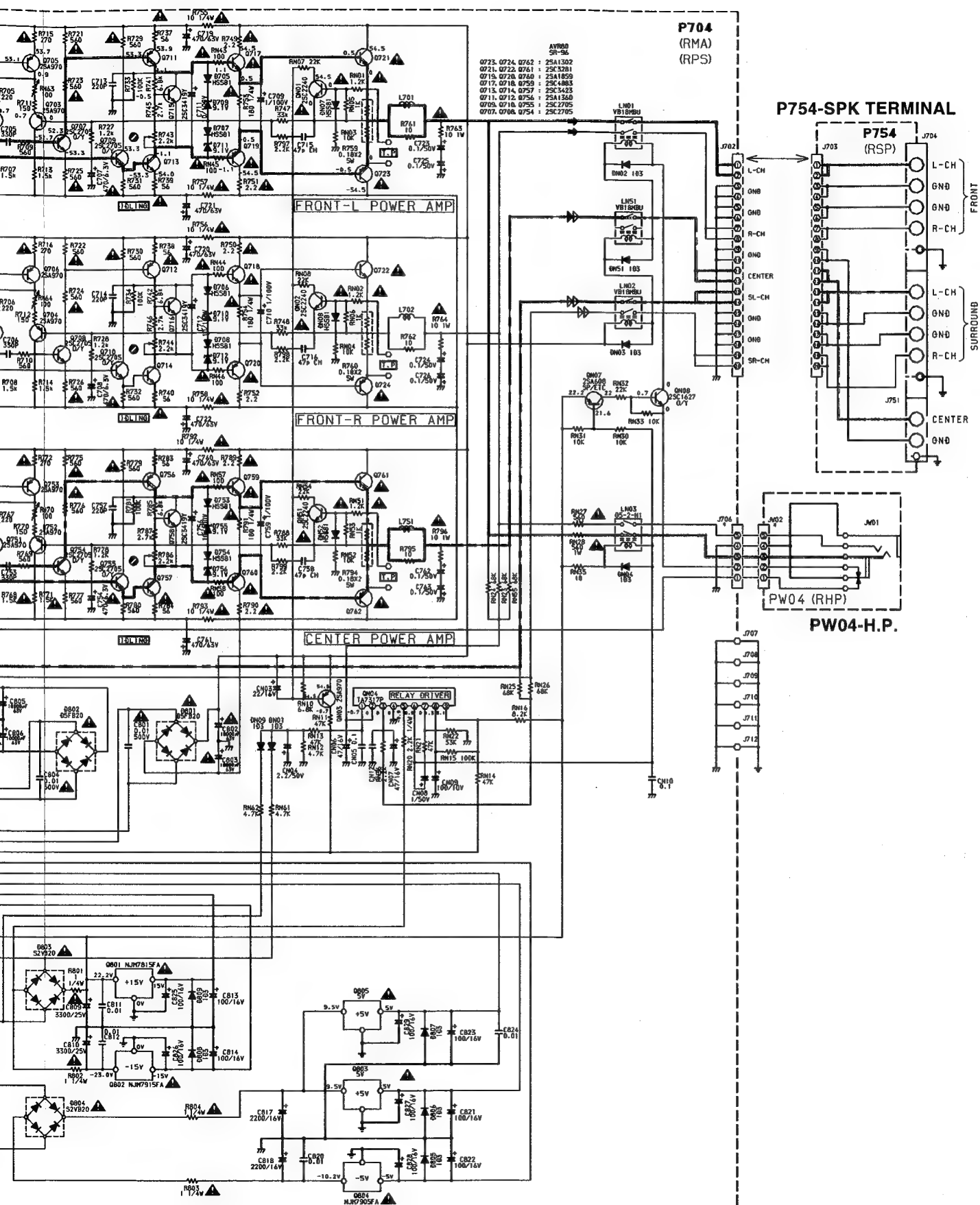


FROM ELE. VOL. SCHEMATIC DIAGRAM (4)

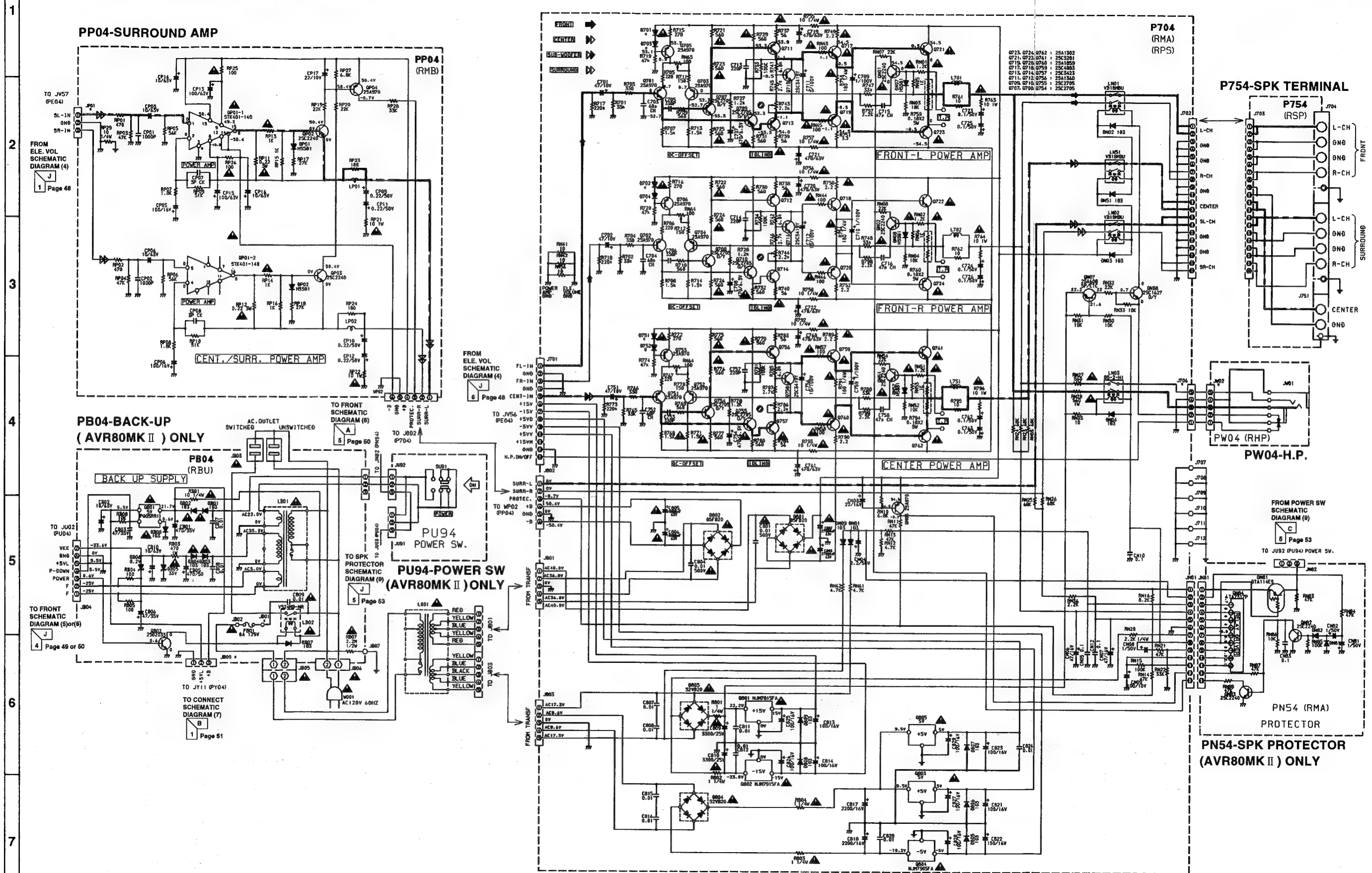
Page 48



J



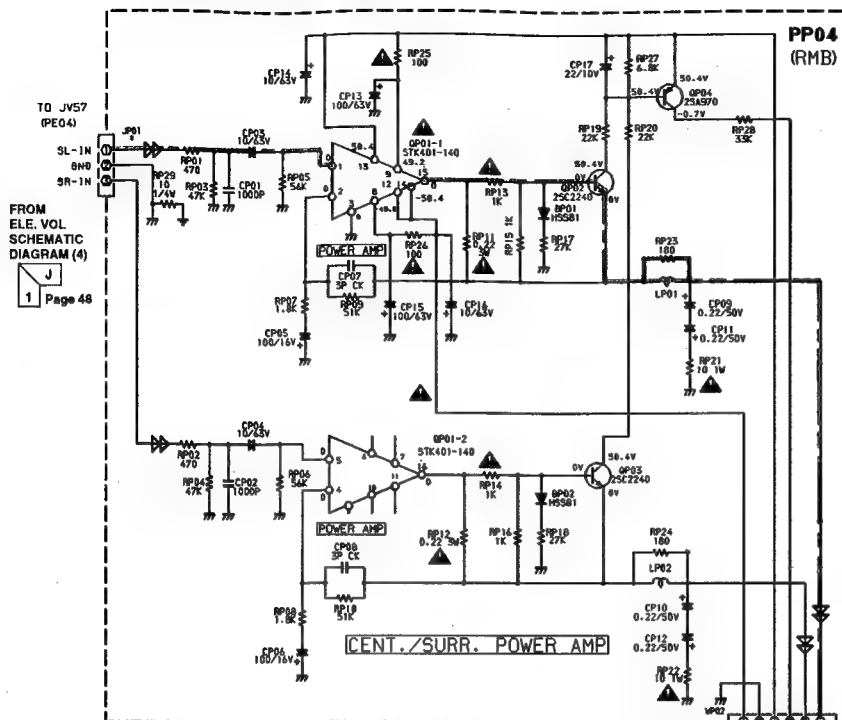
P704-MAIN AMP (AVR80MK II) ONLY



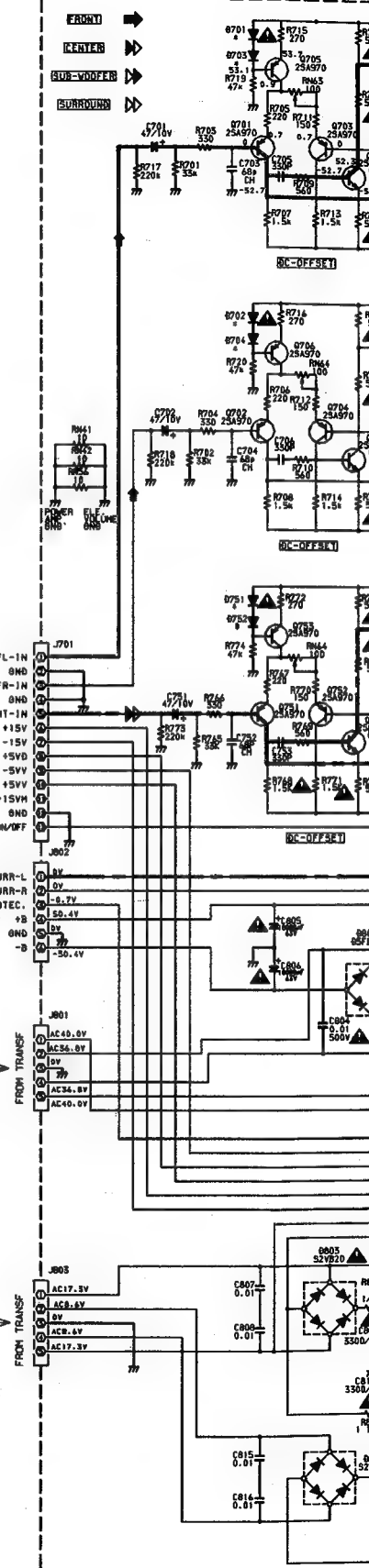
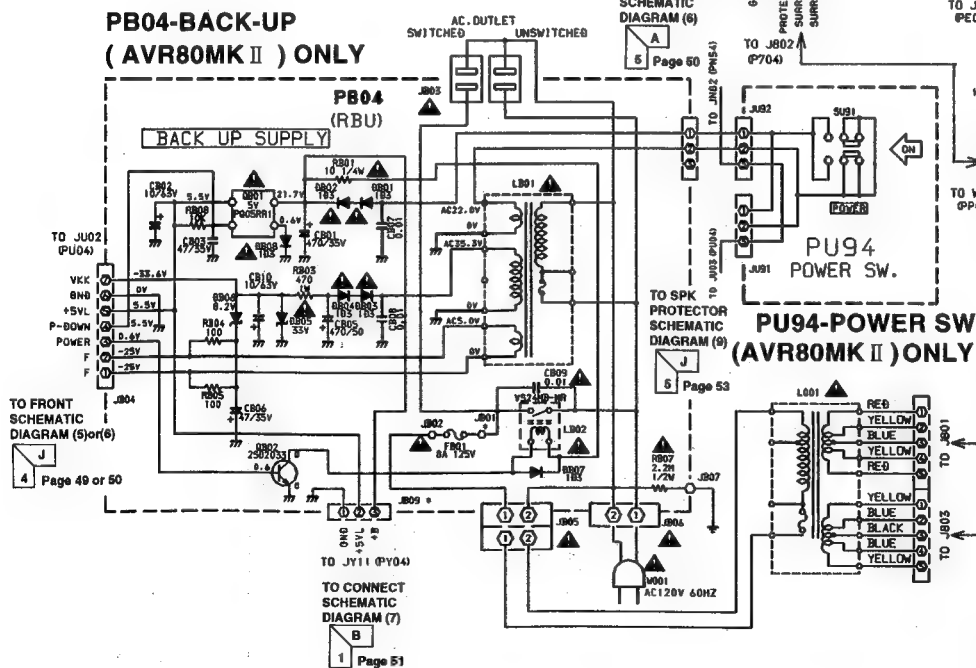
SCHEMATIC DIAGRAM (9) (BK) VERSION

P704-MAIN AMP (AVR80MK I)

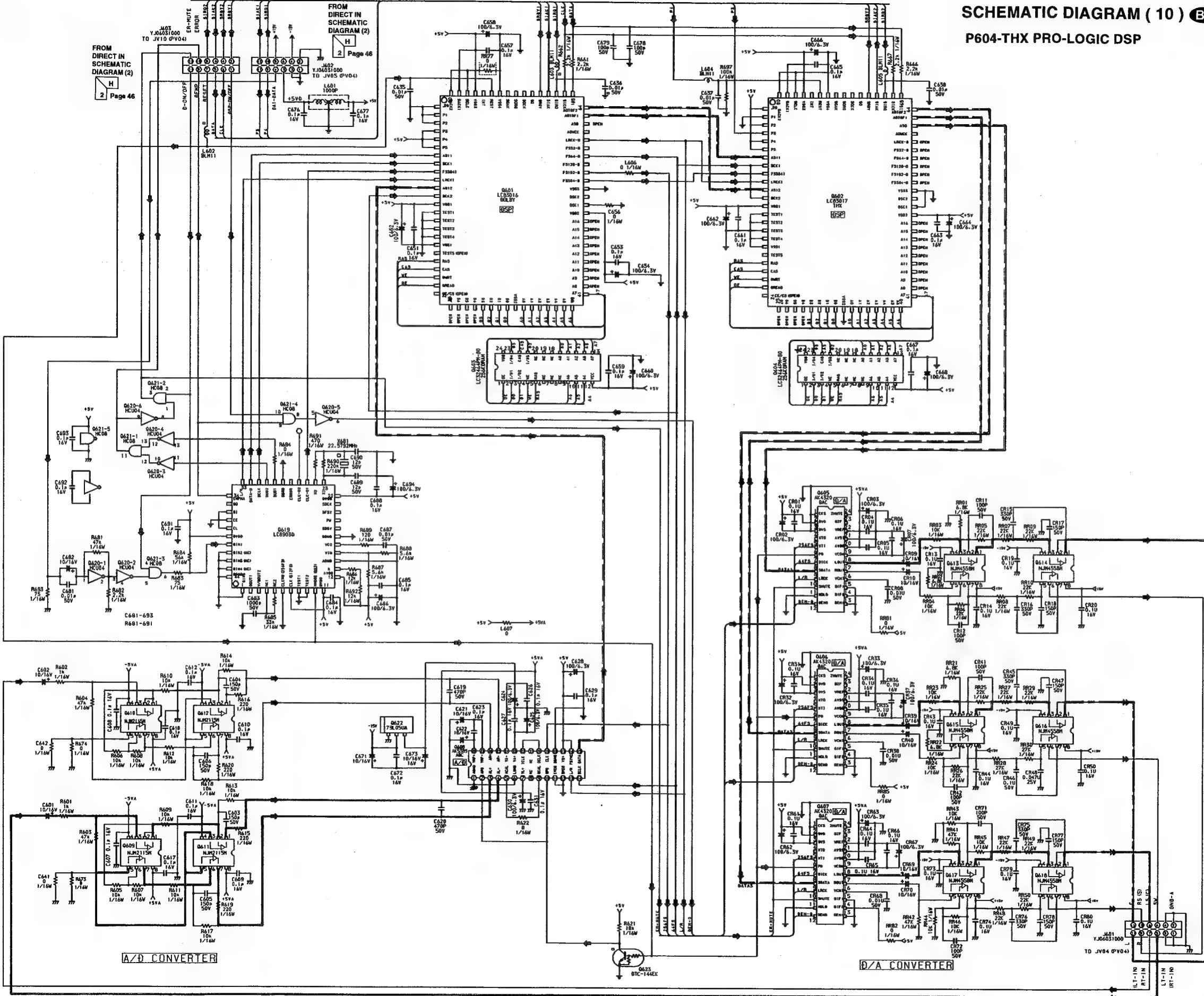
PP04-SURROUND AMP



PB04-BACK-UP (AVR80MK II) ONLY



SCHEMATIC DIAGRAM (10) BK VERSION
P604-THX PRO-LOGIC DSP

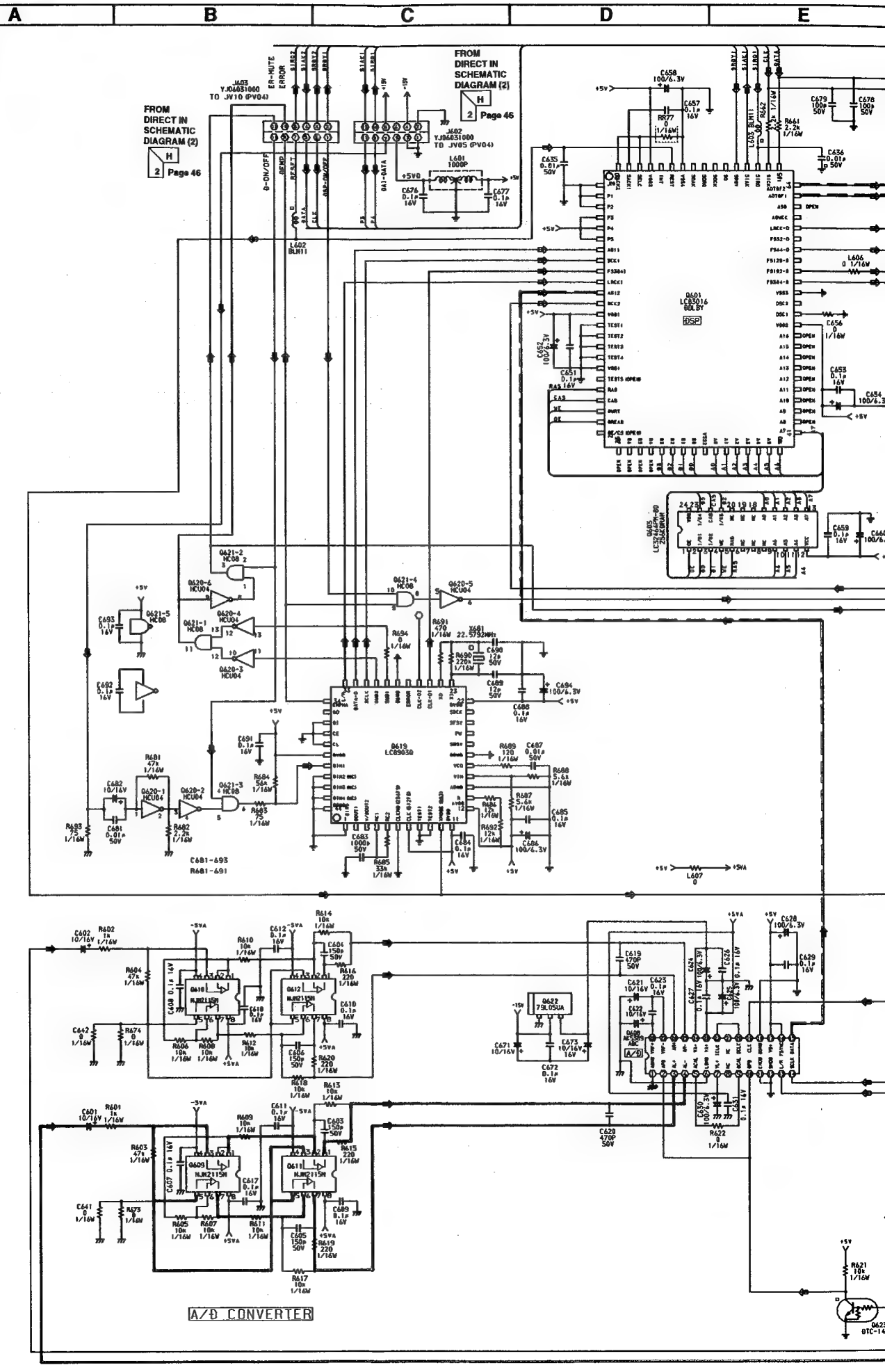


DIGITAL
FRONT
CENTER
SUB-WINNER
SURROUND

TO DIRECT IN SCHEMATIC DIAGRAM (2)

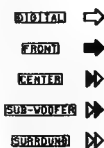
1 Page 46

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A/D CONVERTER

P604-THX PRO-LOGIC DSP

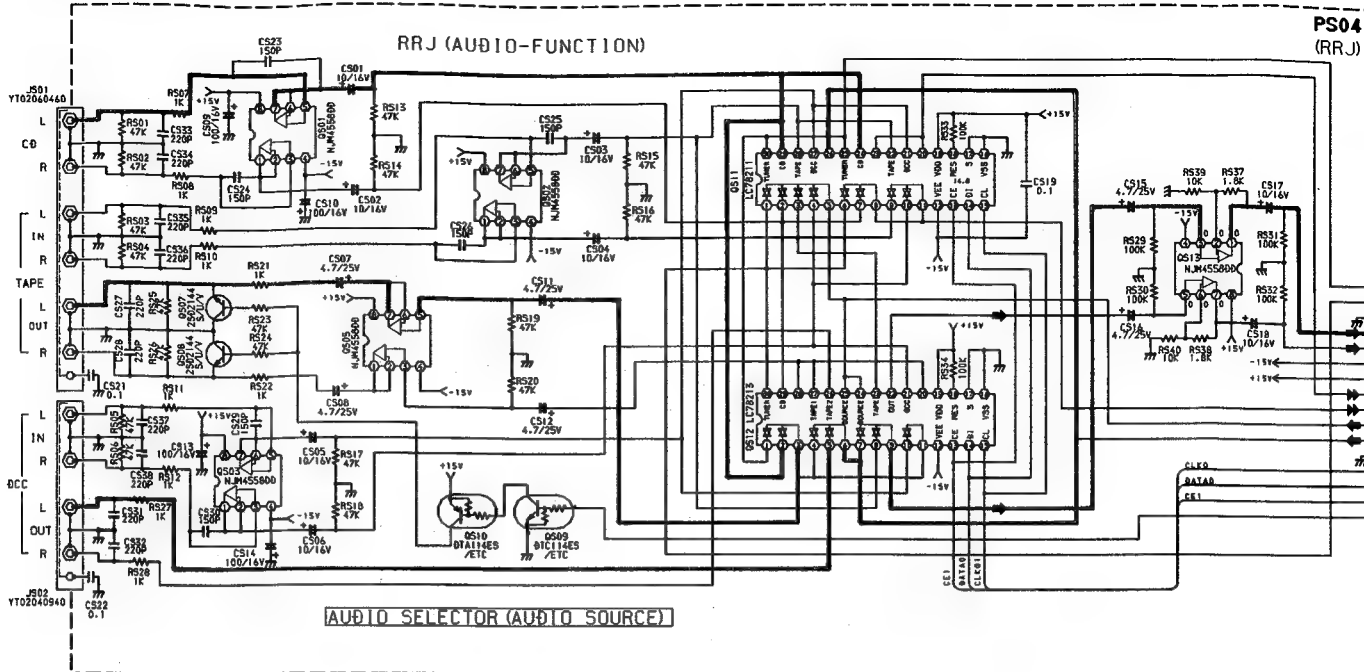


TO
DIRECT IN
SCHEMATIC
DIAGRAM (2)

SCHEMATIC DIAGRAM (11) (B) VERSION

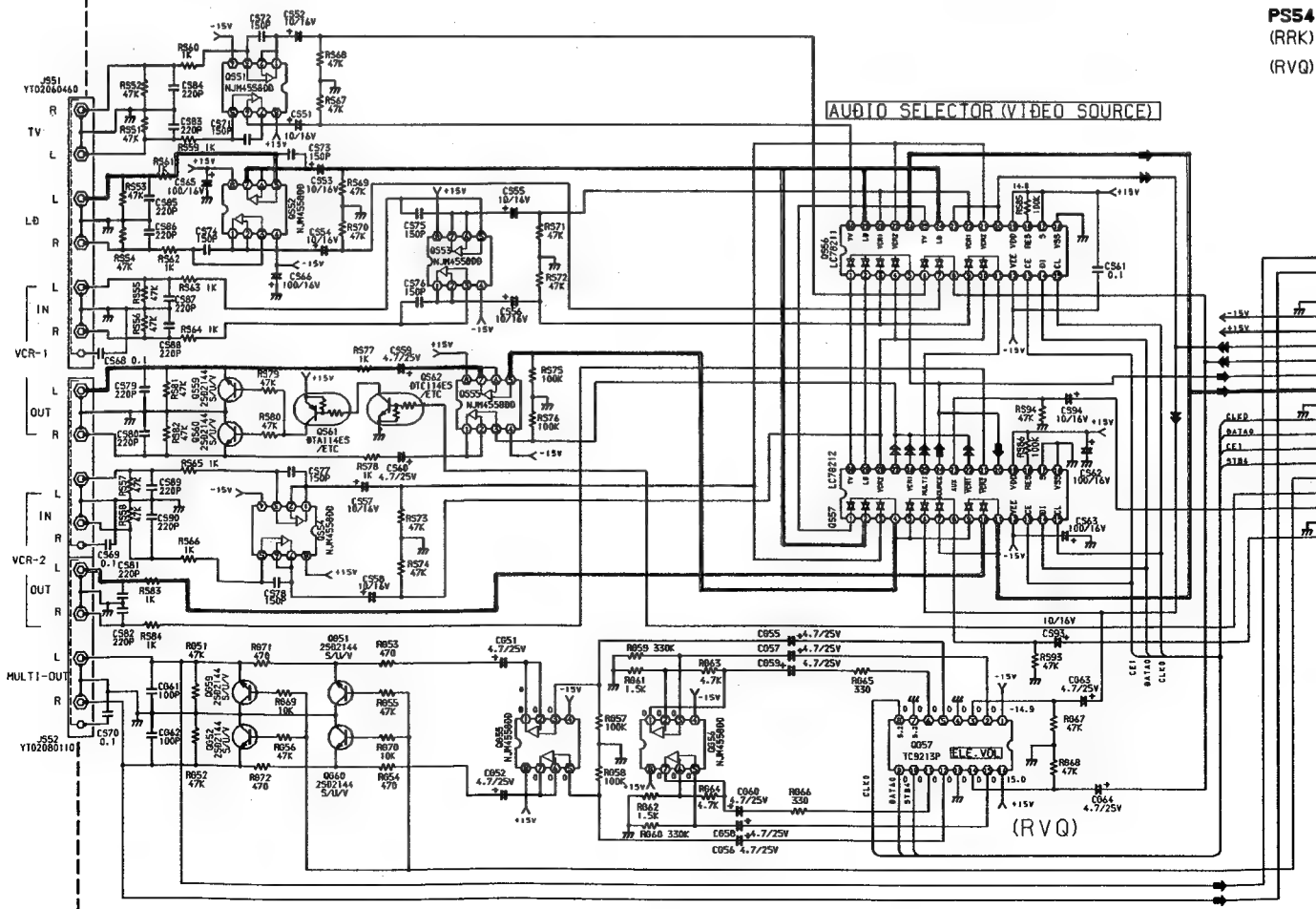
PS04-AUDIO FUNCTION

PS04
(RRJ)



PS54-V-AUDIO FUNCTION

PS54
(RRK)
(RVQ)



F

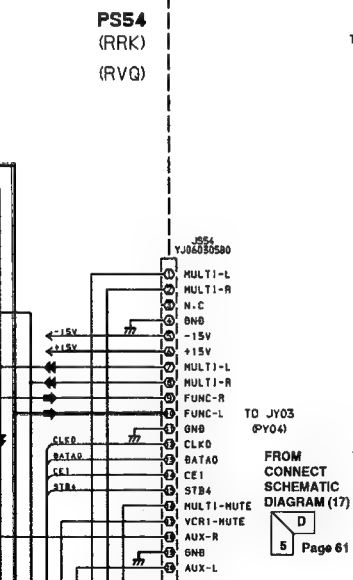
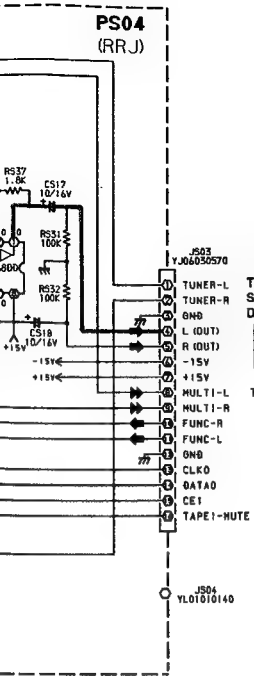
G

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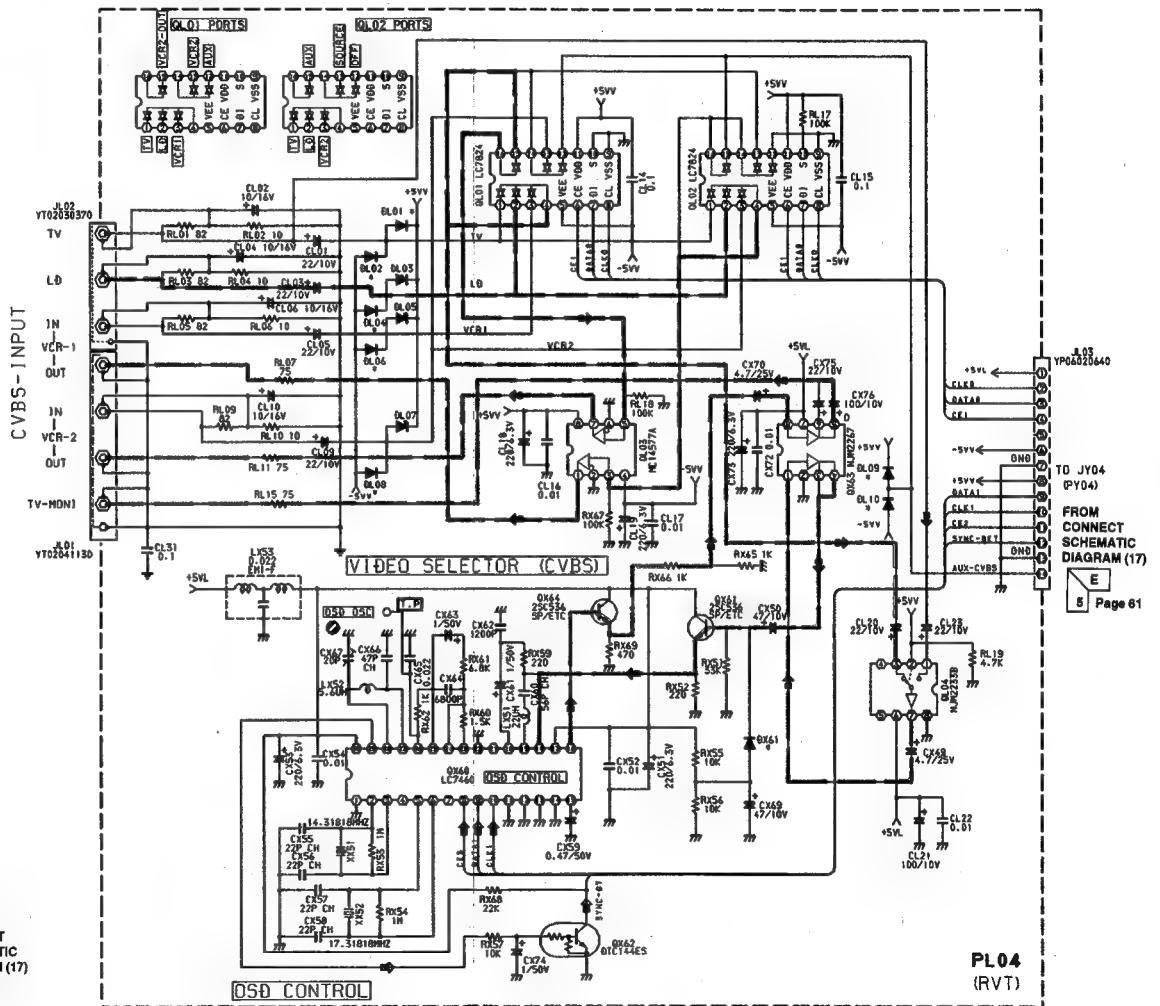
I

J

IO FUNCTION

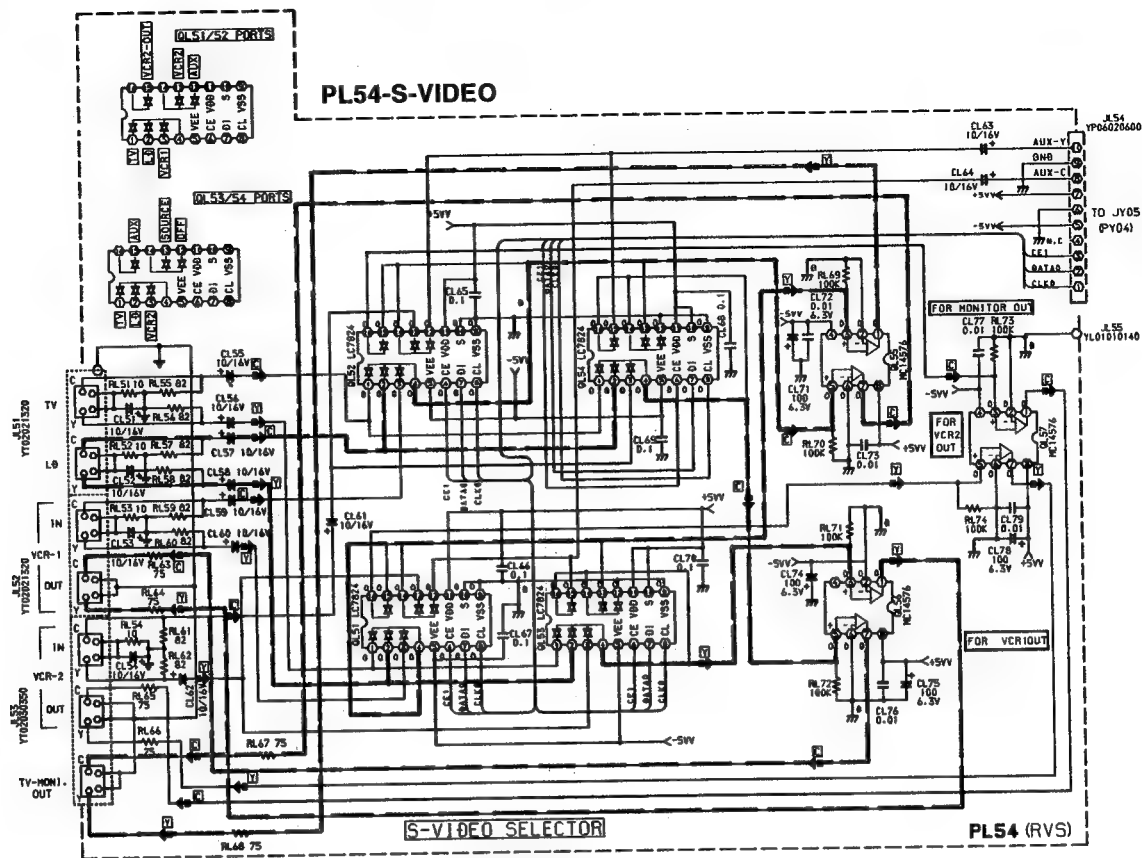


PL04-VIDEO SELECTOR

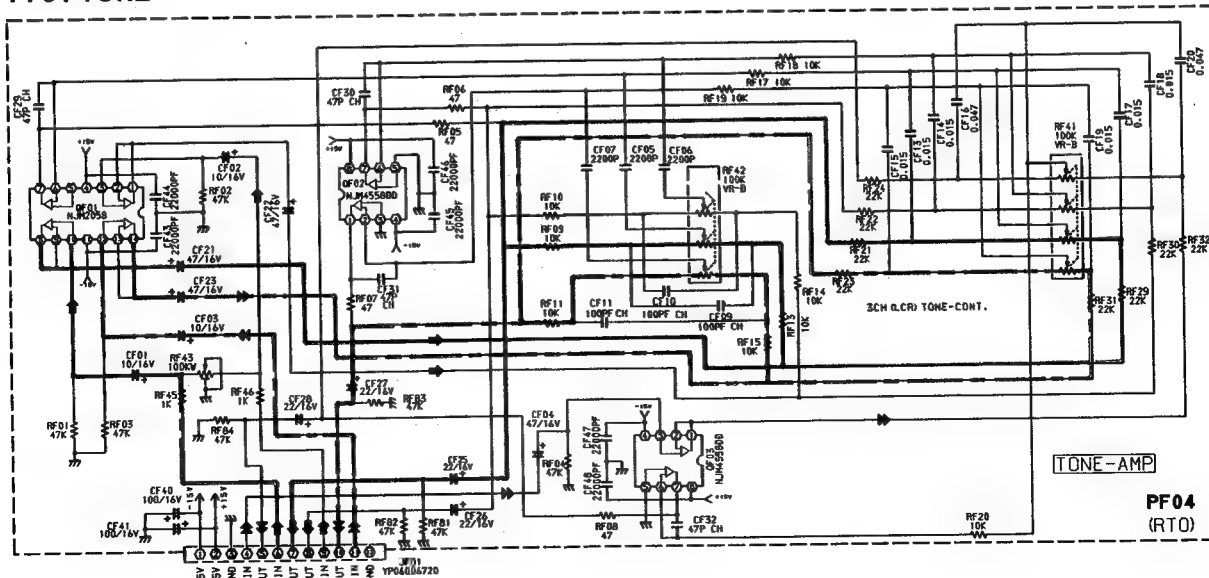


FRONT →
MULTI ROOM →

SCHEMATIC DIAGRAM (12) (B) VERSION



PF04-TONE



F

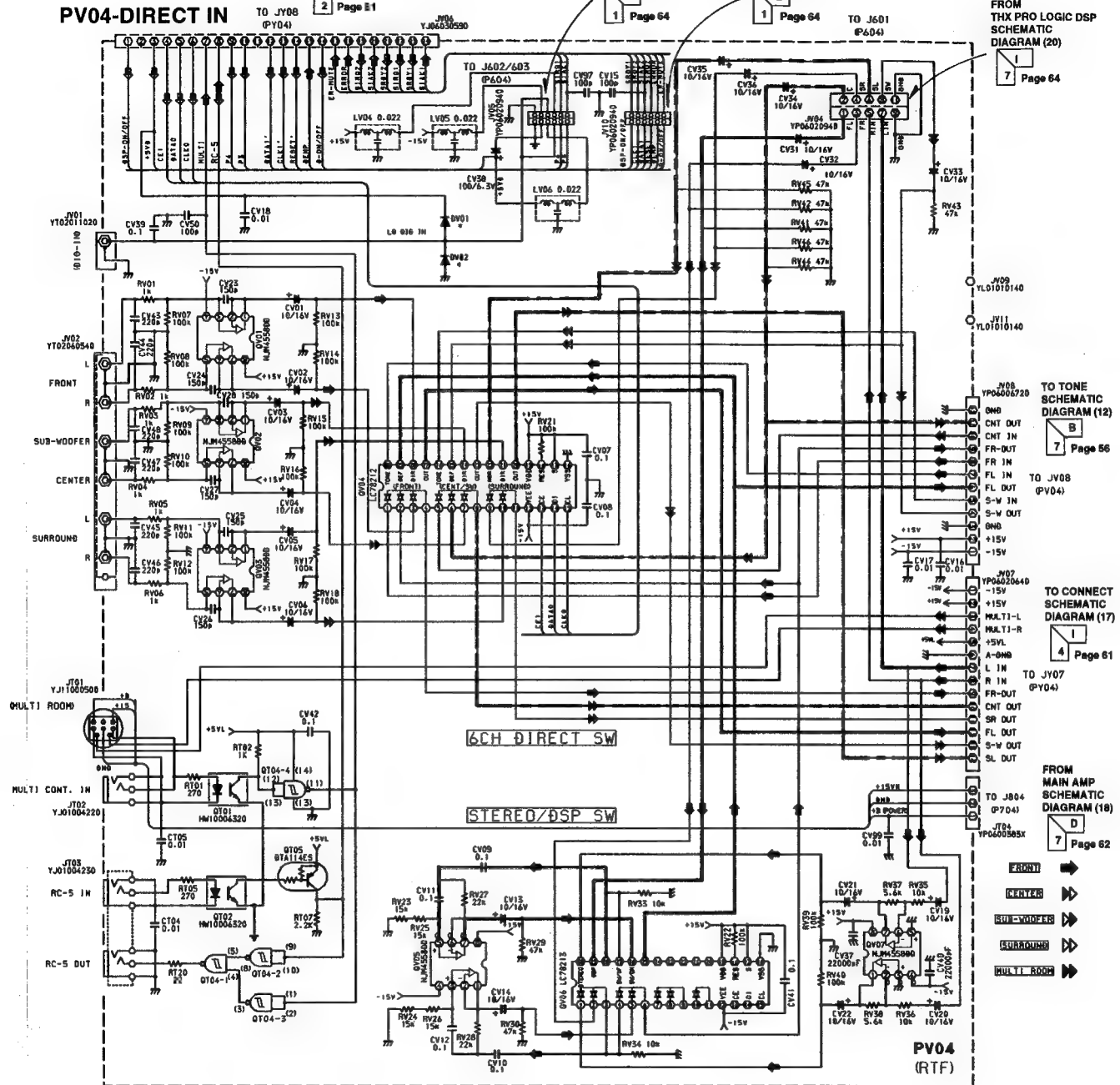
G

H

I

J

PV04-DIRECT IN

FROM
CONNECT
SCHEMATIC
DIAGRAM (17)
1 Page 61TO THX PRO LOGIC DSP
SCHEMATIC
DIAGRAM (20)
1 Page 64TO THX PRO LOGIC DSP
SCHEMATIC
DIAGRAM (20)
1 Page 64FROM
THX PRO LOGIC DSP
SCHEMATIC
DIAGRAM (20)
1 Page 64

SCHEMATIC DIAGRAM (13) **IB VERSION**

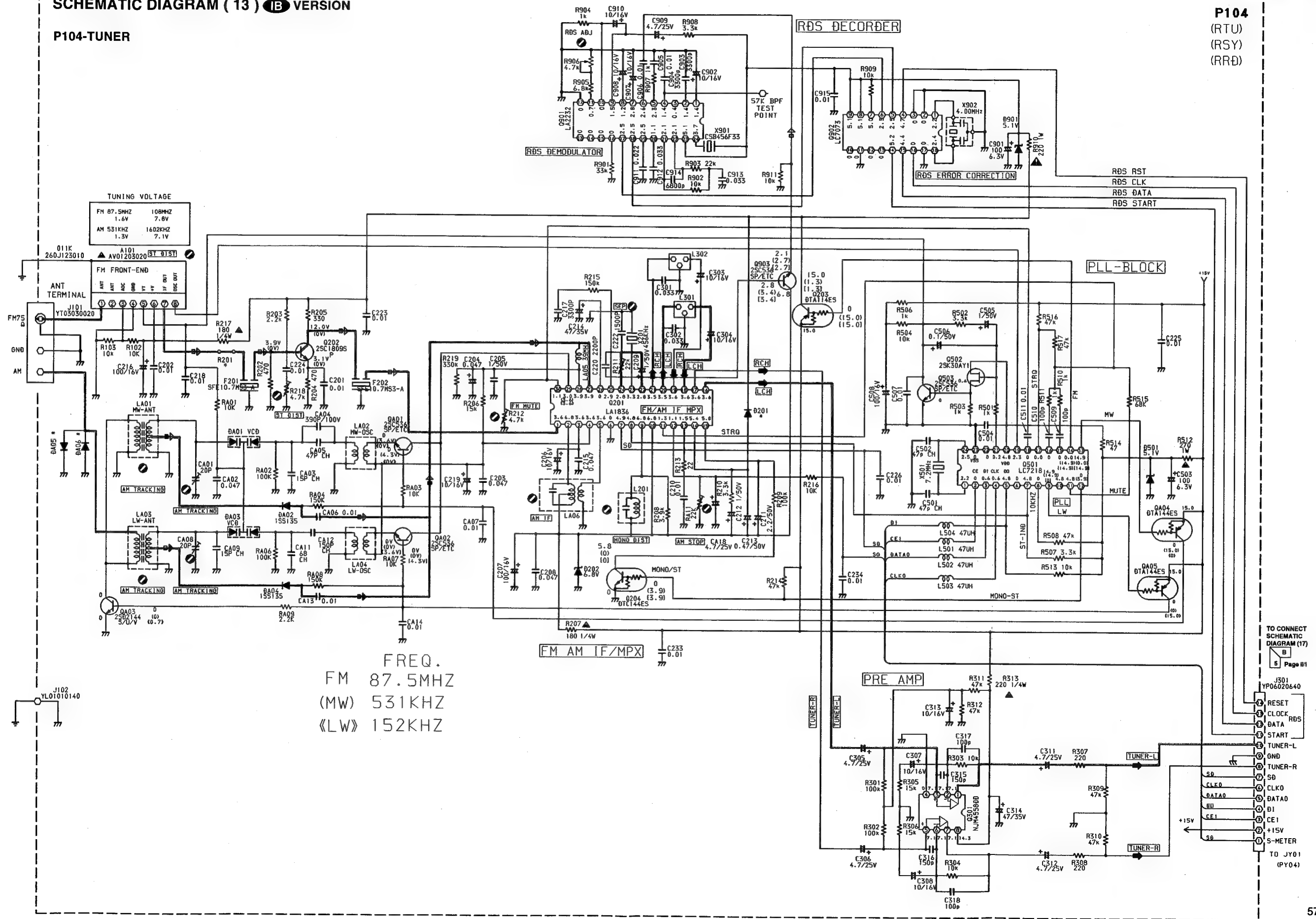
P104-TUNER

P104


(RTU)

(RSY)

(RRD)



TO CONNECT
SCHEMATIC
DIAGRAM (17)



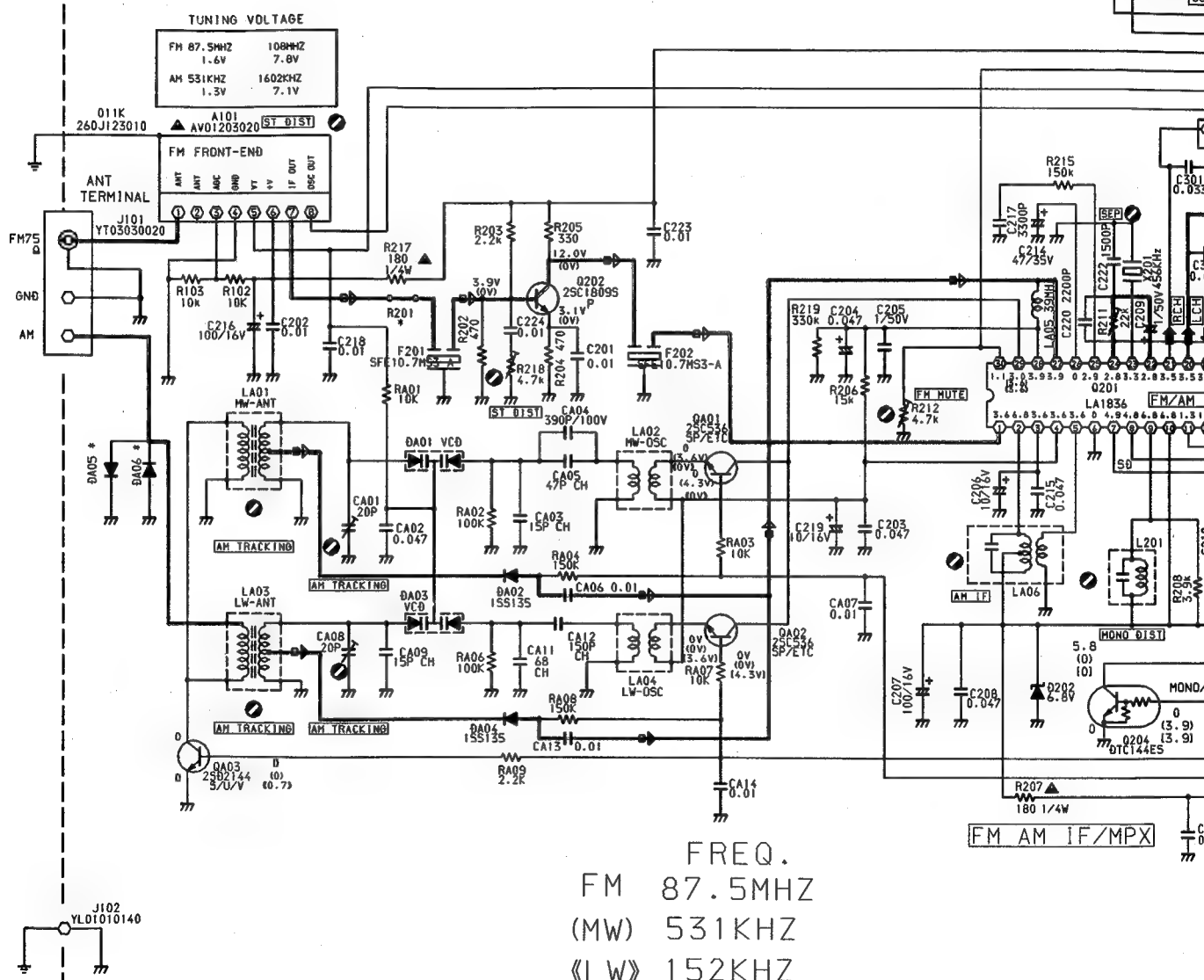
5 Page 61

J301
YP06020640

RESET	RDS
CLOCK	
DATA	
START	

TUNER-L
GND
TUNER-R
SD
CLKO
DATA0
DI
CE1
+15V
S-METER
TO JY01
(PY04)

P104-TUNER





SCHEMATIC DIAGRAM (14) **IB** VERSION

PE04-ELE. VOL

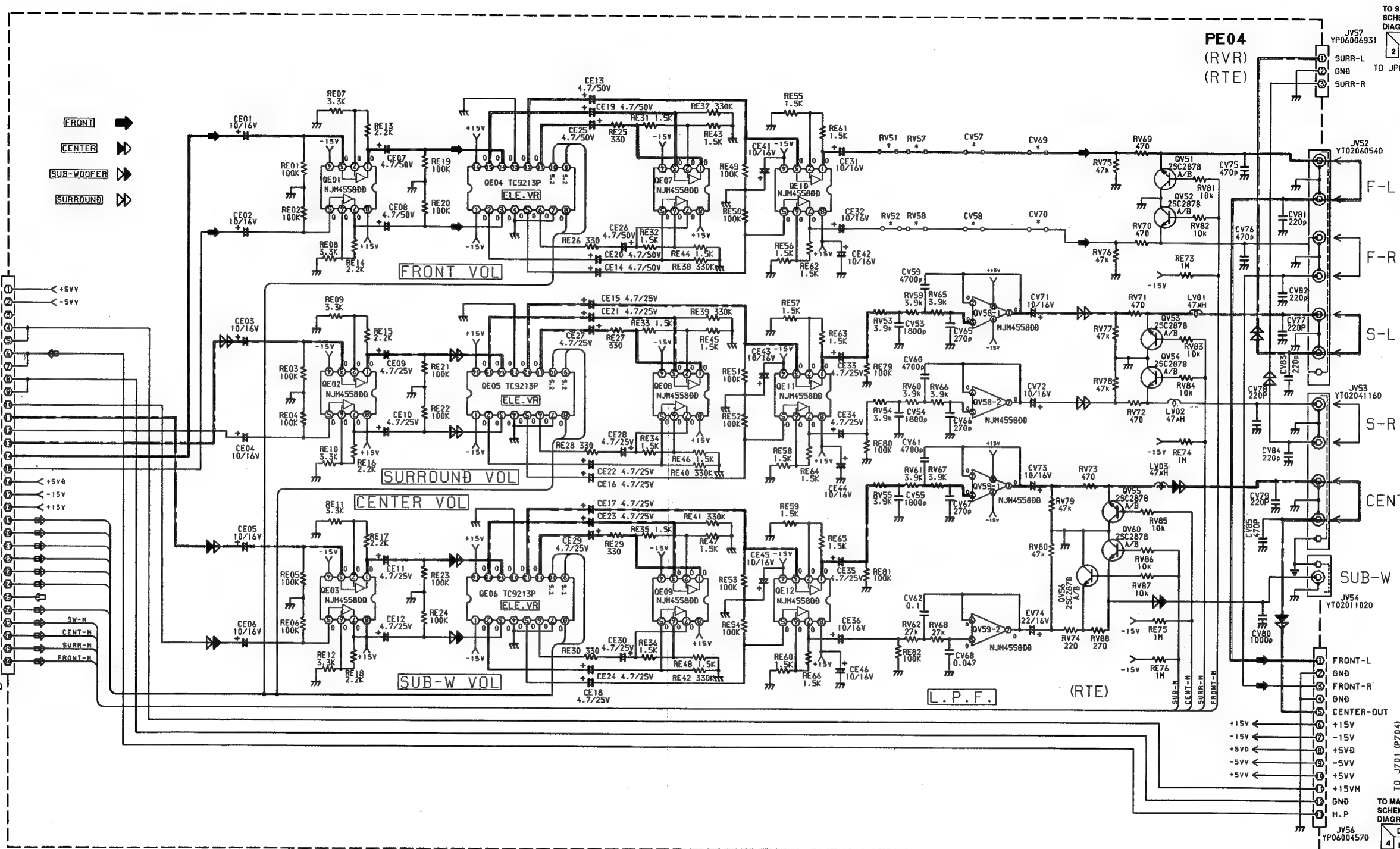
FRONT
CENTER
SUB-WOOFER
SURROUND

PE04
(RVR)
(RTE)

TO SURROUND AMP
SCHEMATIC
DIAGRAM (18) or (19)
2 Page 62 or 63
TO JP01 (PP04)

+5V
-5V
NC
+15V
+15V
H.P.
H.P.
GND
GND
SUB-W
CENTER
SURR-R
SURR-L
FRONT-L
FRONT-R
+5V
-15V
+15V
STB3
VCLK3
STB2
VCLK2
STB1
VCLK1
MULT1
DATA0
SW-MUTE
CENT-MUTE
SURR-MUTE
FRONT-MUTE
JV55
YJ06030600

FROM
CONNECT
SCHEMATIC
DIAGRAM (17)
5 Page 61

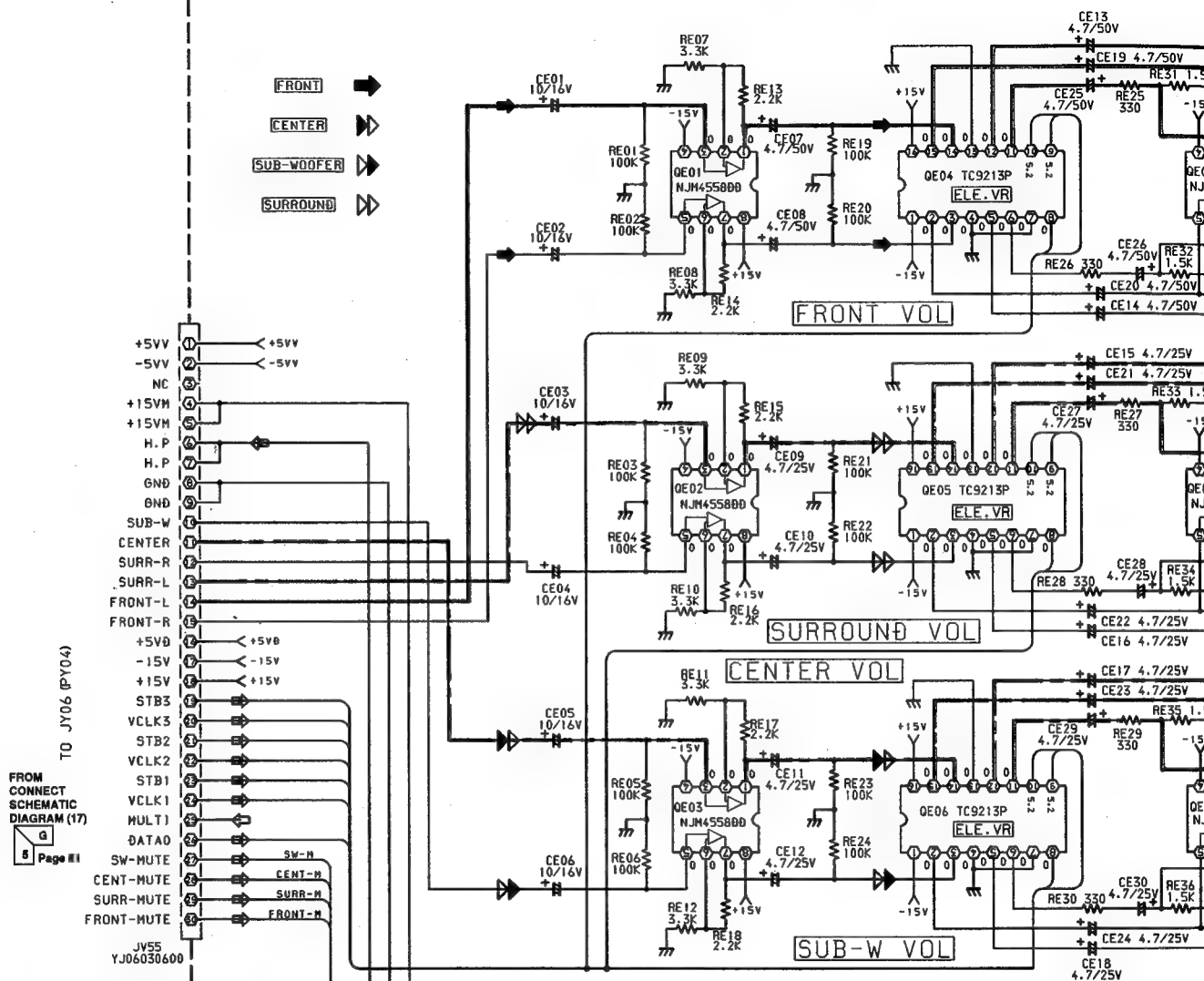


FRONT-L
GND
FRONT-R
GND
CENTER-OUT
+15V
-15V
+5V
-5V
+5V
+15V
GND
H.P.

TO MAIN AMP
SCHEMATIC
DIAGRAM (18) or (19)
4 Page 62 or 63
TO J701 (P704)

SCHEMATIC DIAGRAM (14) (B) VERSION

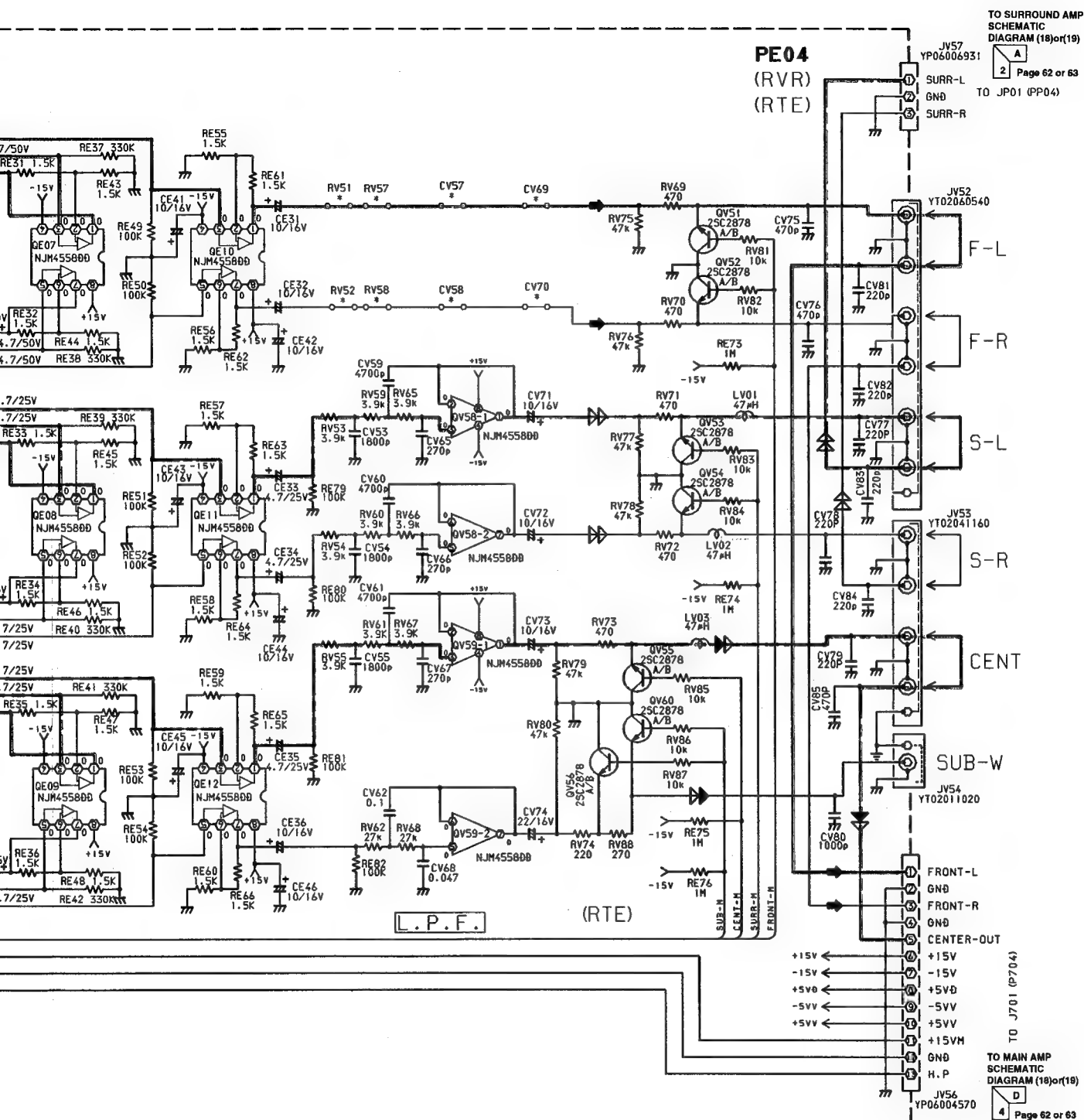
PE04-ELE. VOL



FROM CONNECT
SCHEMATIC
DIAGRAM (17)

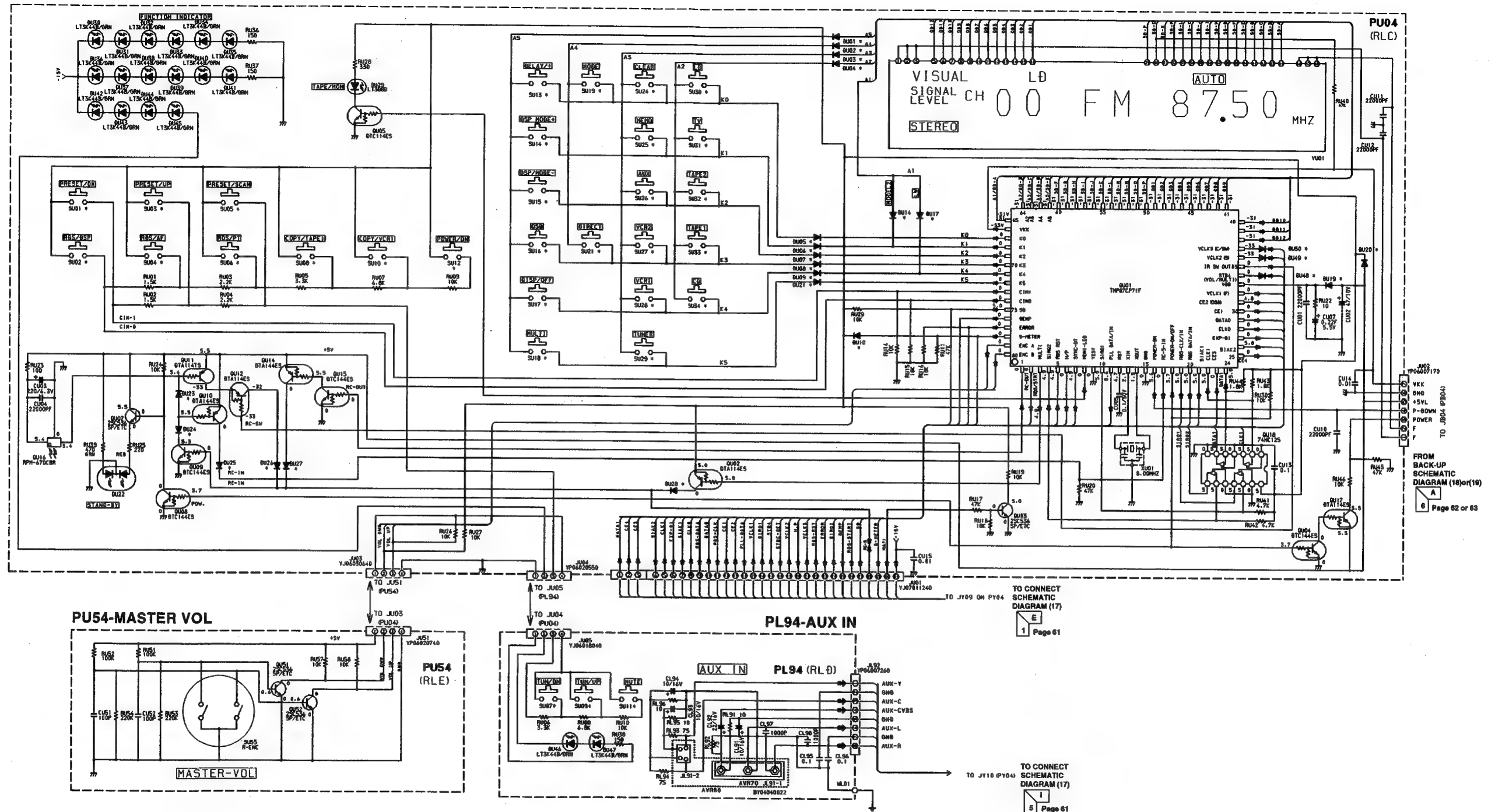
Page III

JV55
YJ06030600

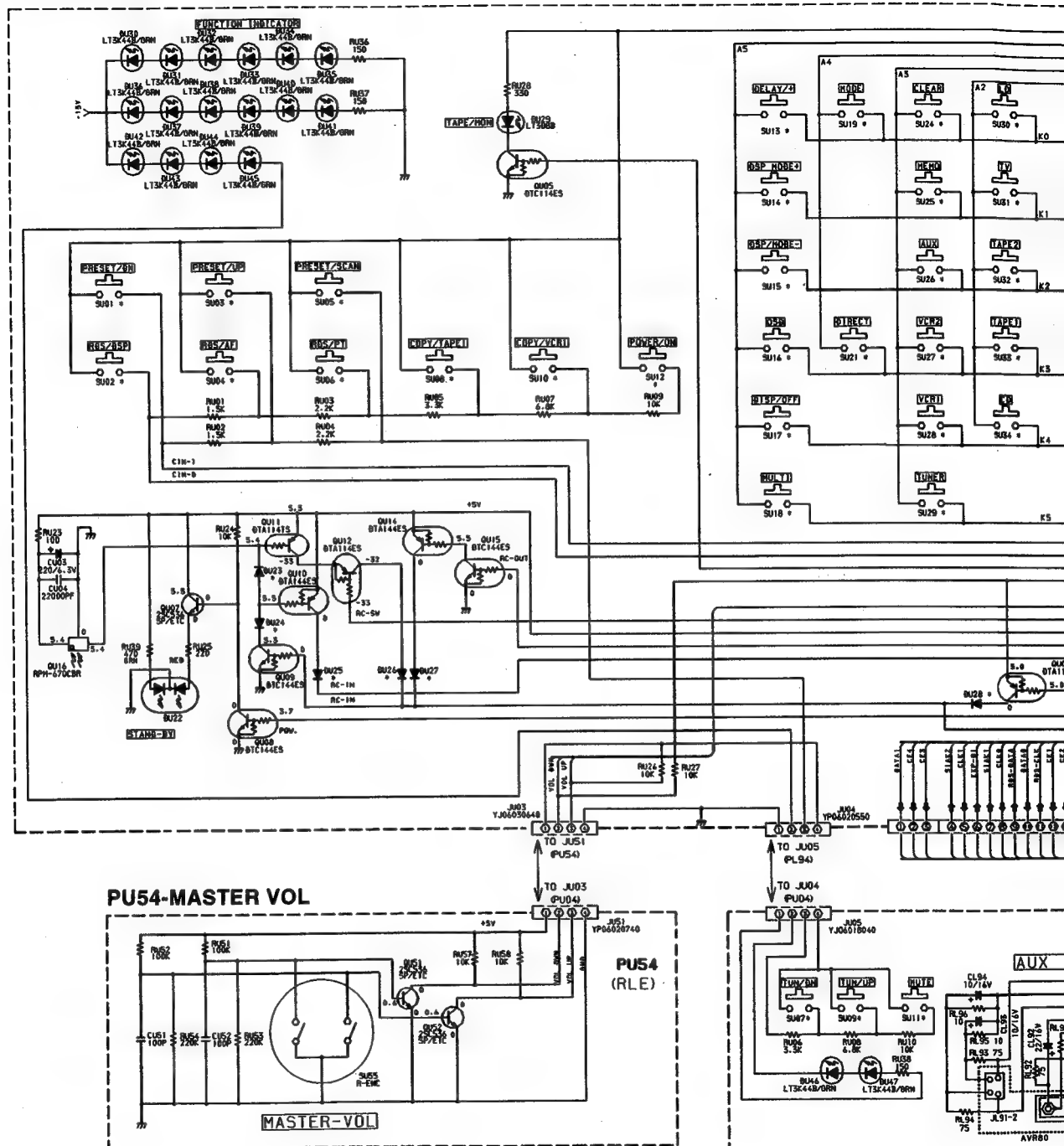


SCHEMATIC DIAGRAM (15) **B VERSION**

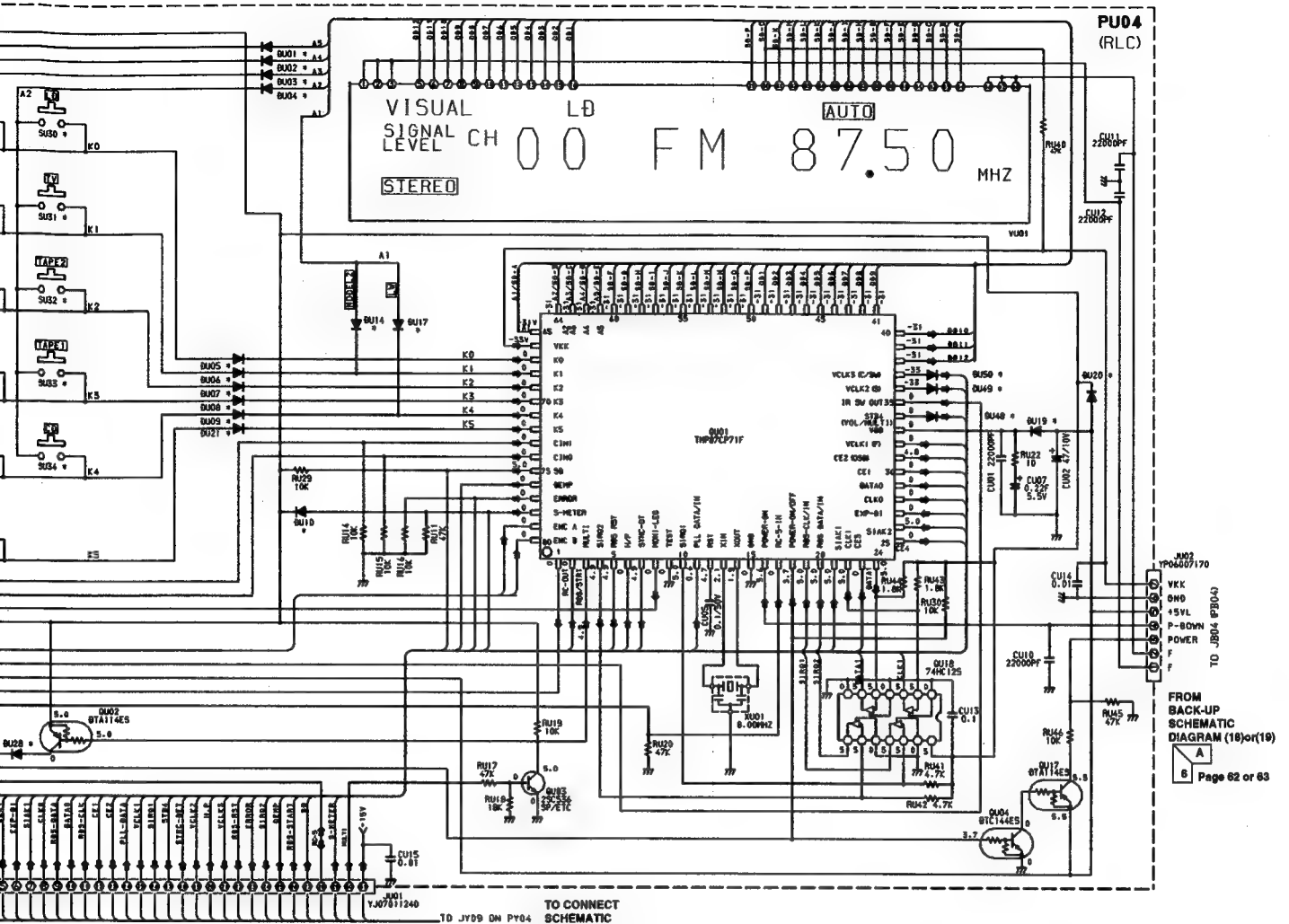
PU04-FRONT (AVR80) ONLY



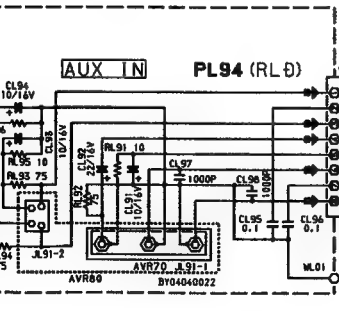
PU04-FRONT (AVR80) ONLY



F G H I J



PL94-AUX IN



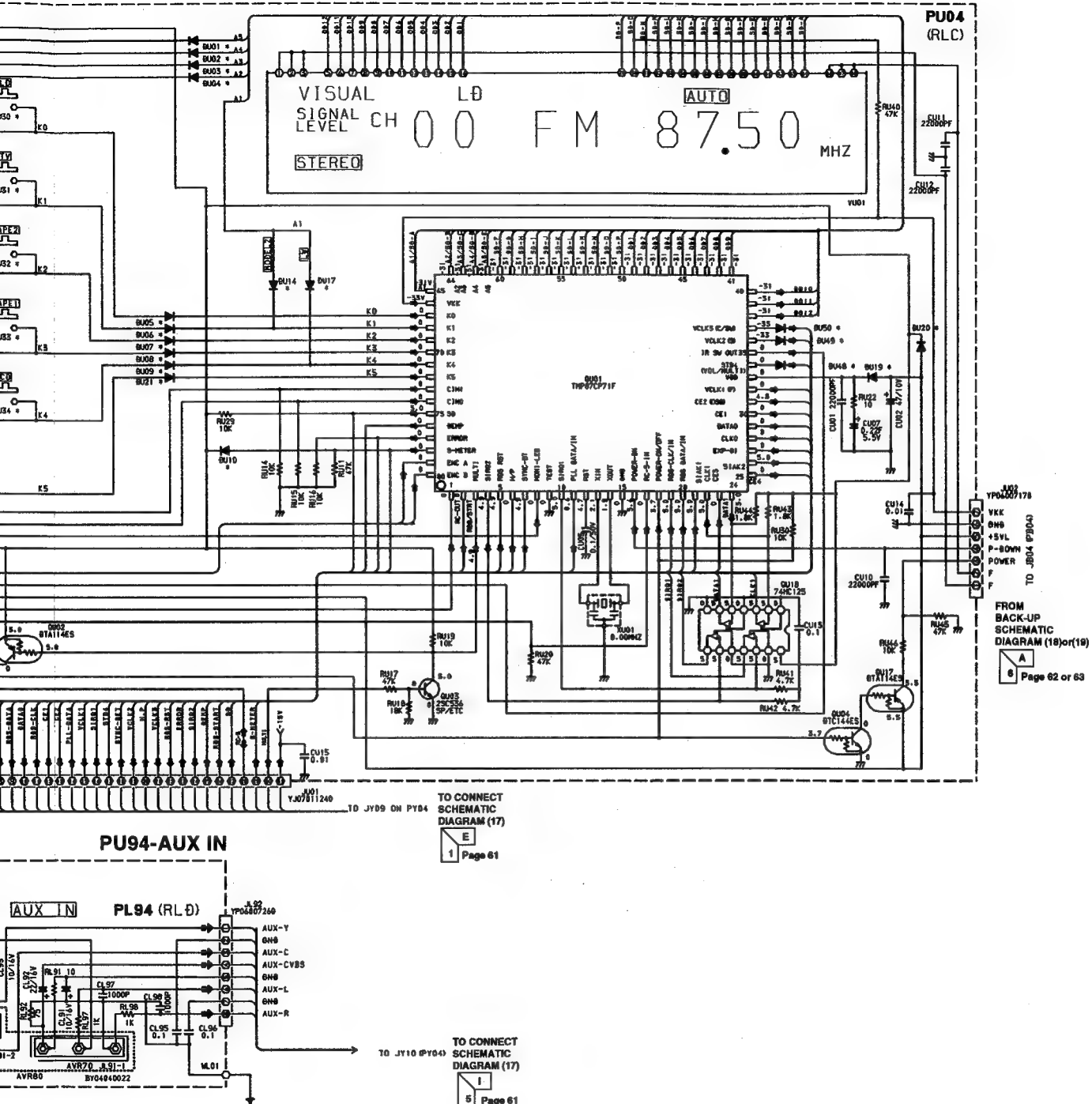
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SCHEMATIC DIAGRAM (17) 1B VERSION

FROM BACK-UP
SCHEMATIC
DIAGRAM (18) or (19)

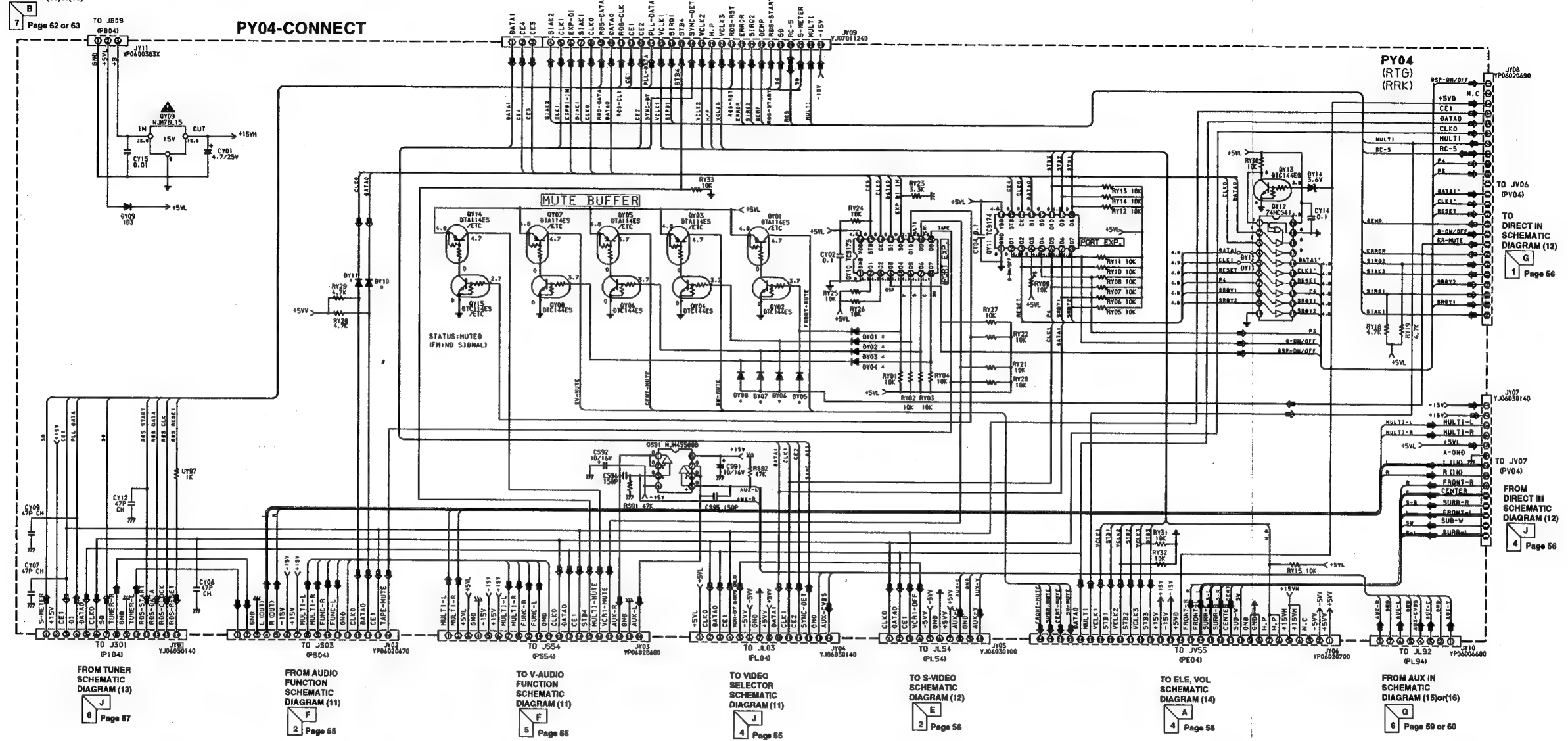
7 Page 62 or 63

PY04-CONNECT

FROM FRONT
SCHEMATIC
DIAGRAM (15) or (16)

5 Page 58 or 60

TO JU01
(PU04)



FROM TUNER
SCHEMATIC
DIAGRAM (13)

6 Page 57

FROM AUDIO
FUNCTION
SCHEMATIC
DIAGRAM (11)

2 Page 55

TO V-AUDIO
FUNCTION
SCHEMATIC
DIAGRAM (11)

5 Page 55

TO VIDEO
SELECTOR
SCHEMATIC
DIAGRAM (11)

4 Page 55

TO S-VIDEO
SCHEMATIC
DIAGRAM (12)

2 Page 56

TO ELE. VOL
SCHEMATIC
DIAGRAM (14)

4 Page 58

FROM AUX IN
SCHEMATIC
DIAGRAM (15) or (16)

6 Page 58 or 60

TO DIRECT IN
SCHEMATIC
DIAGRAM (12)

1 Page 56

FROM DIRECT IN
SCHEMATIC
DIAGRAM (12)

4 Page 56

A	B	C	D	E
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Page 62 of 63

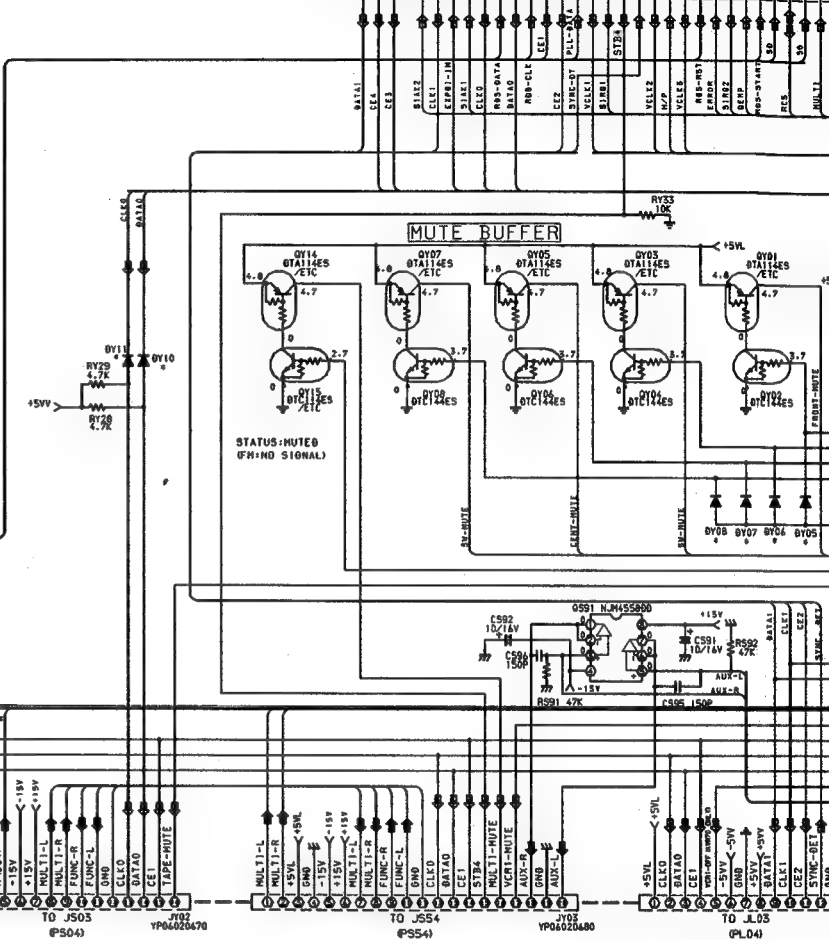
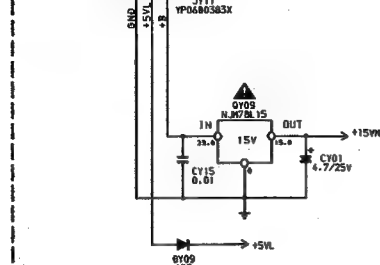
5 Page 59 or 60

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PLU
VCL
SIF
STI



6 Page 57

Low

F
2 Page 55

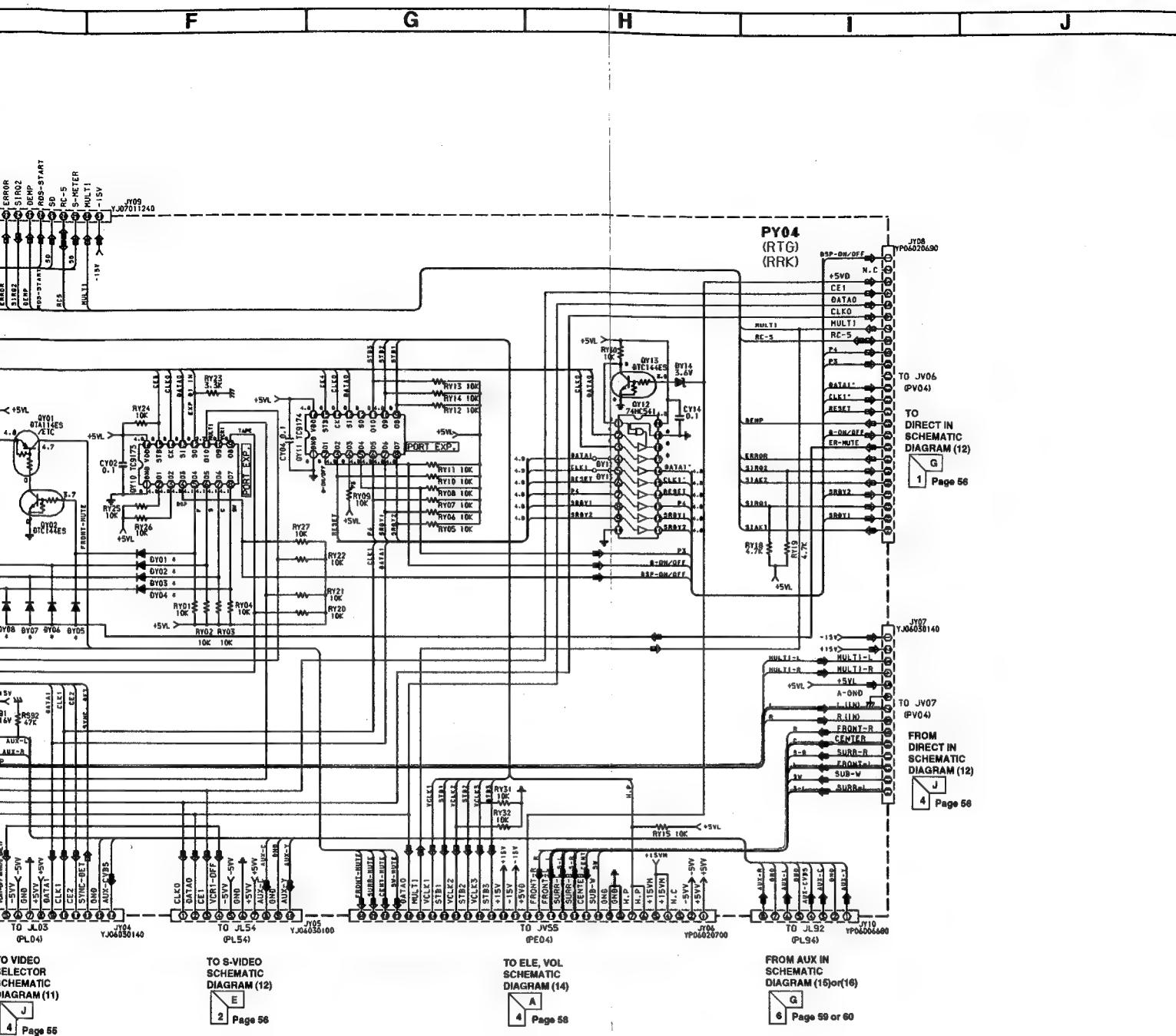
1

Page 55

1

Page 55

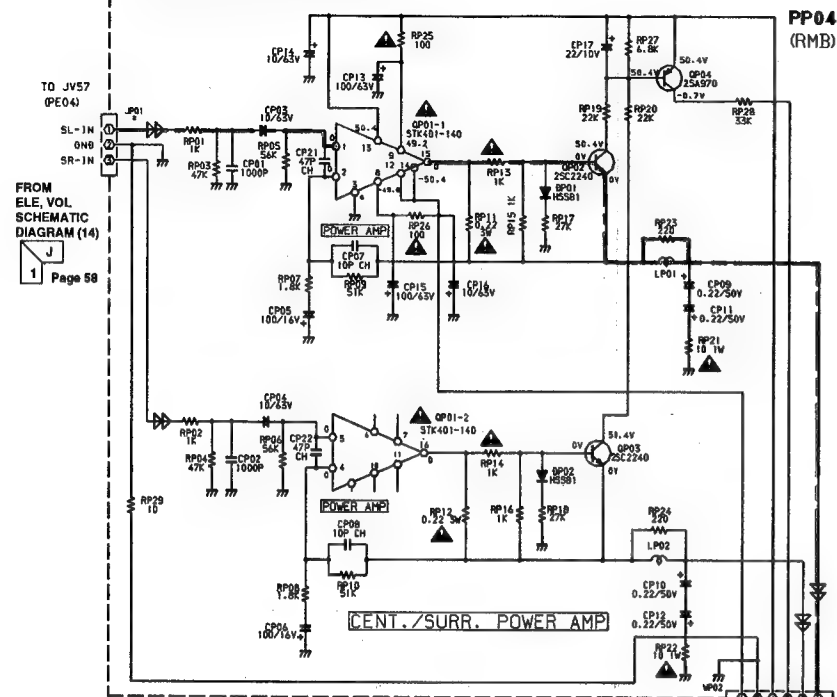
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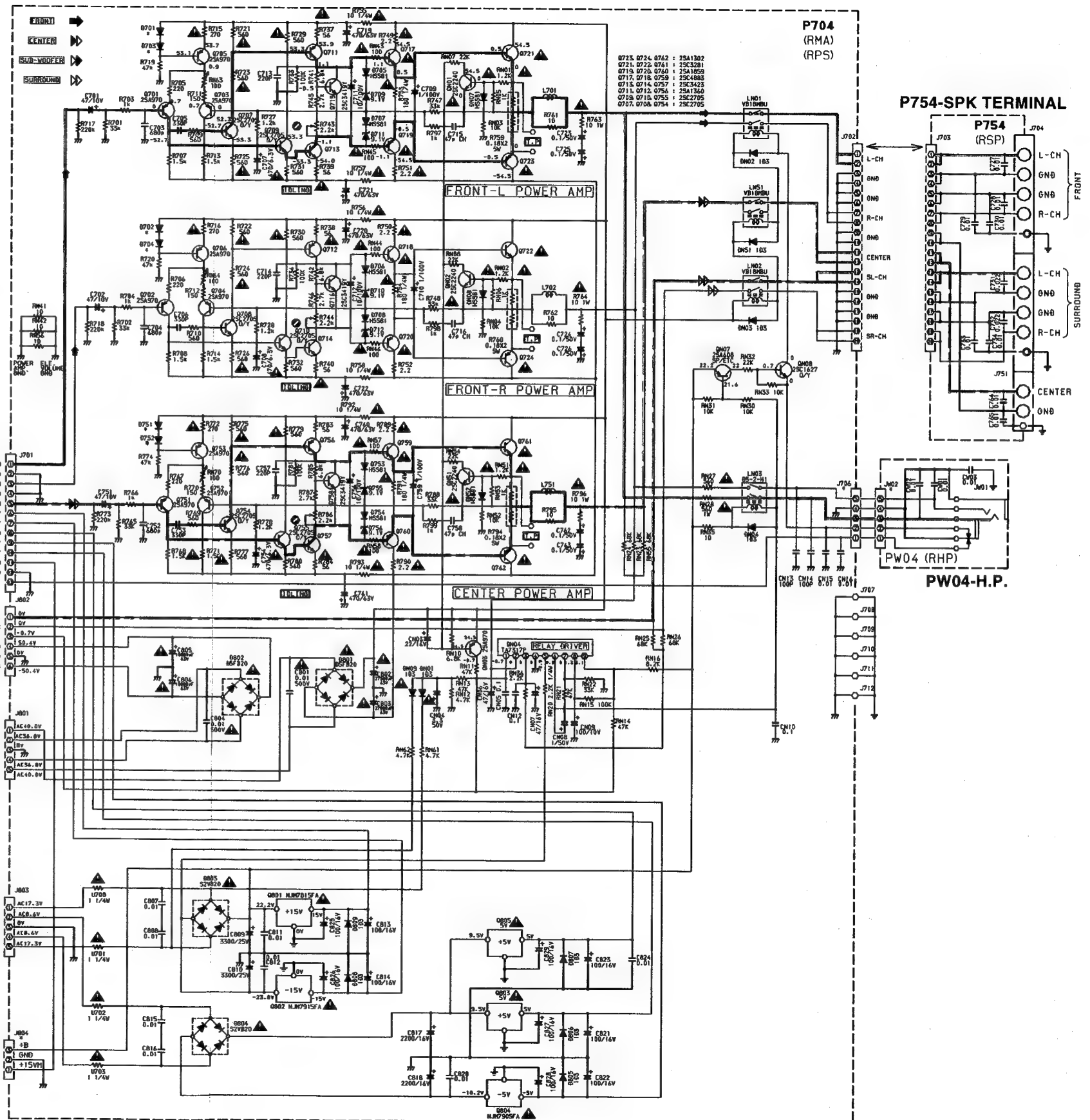
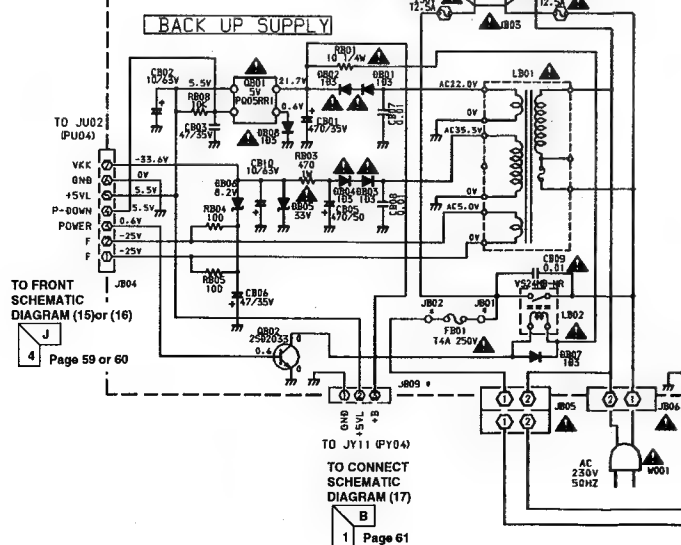
SCHEMATIC DIAGRAM (18) **IB** VERSION

P704-MAIN AMP (AVR80) ONLY

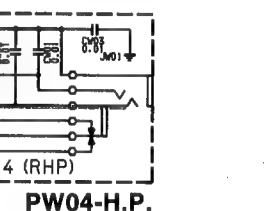
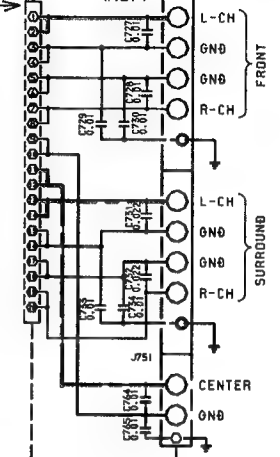
PP04-SURROUND AMP

PP04
(RMB)PB04-BACK-UP
(AVR80) ONLYAC OUTLETS
SWITCHED UNSWITCHED

PB04(RBU)

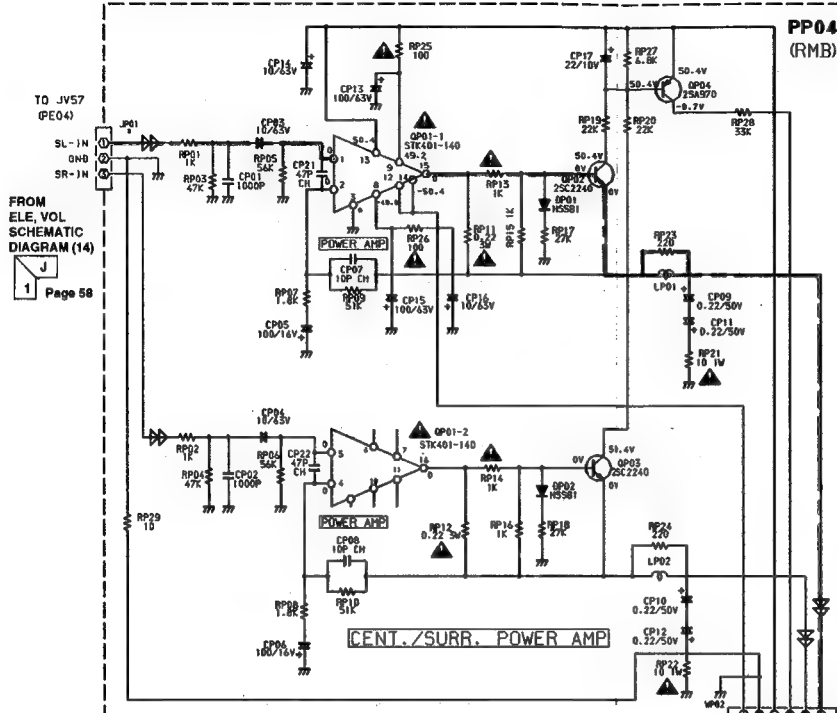


P754-SPK TERMINAL

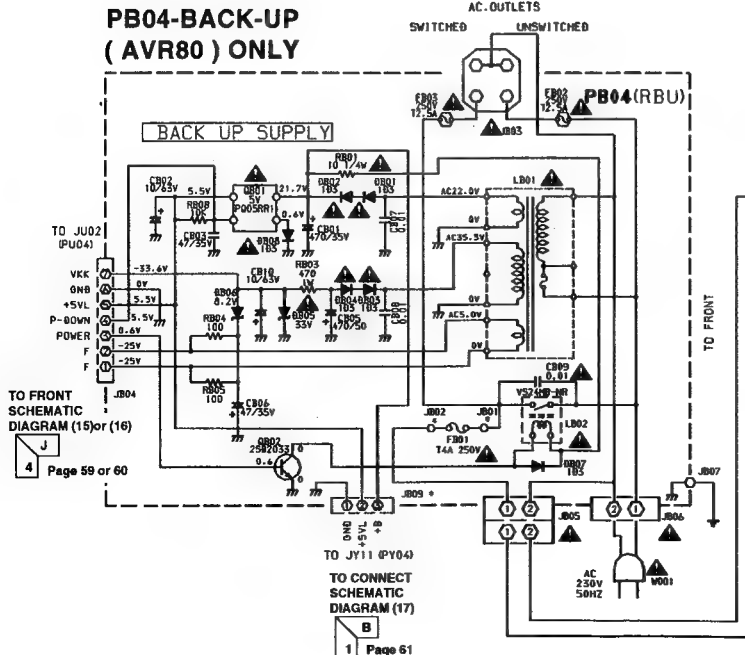
P754
(RSP)

SCHEMATIC DIAGRAM (18) (B) VERSION

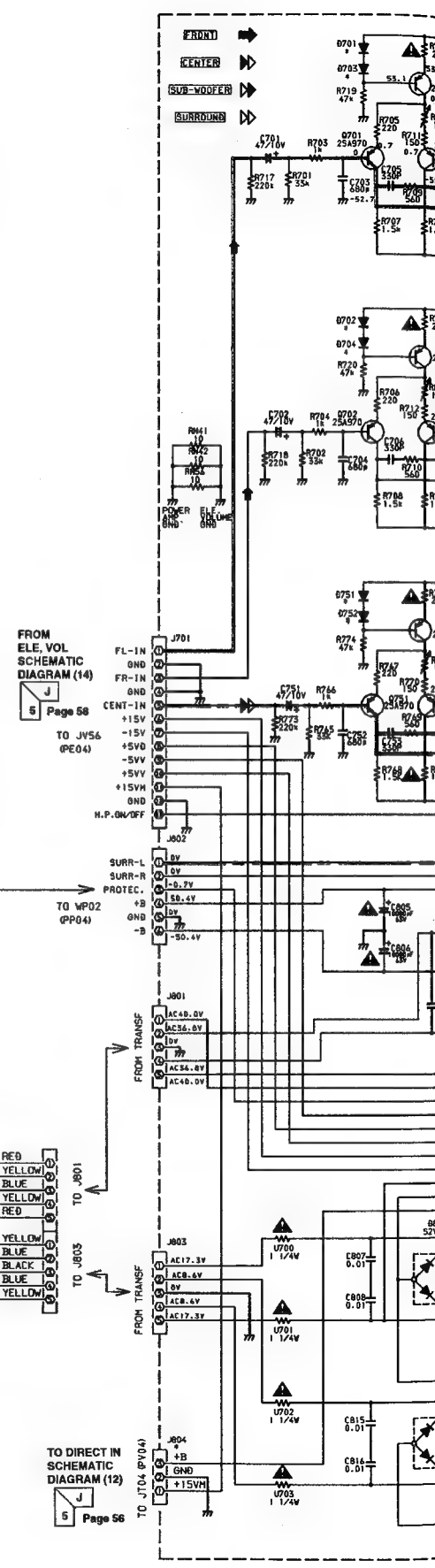
PP04-SURROUND AMP



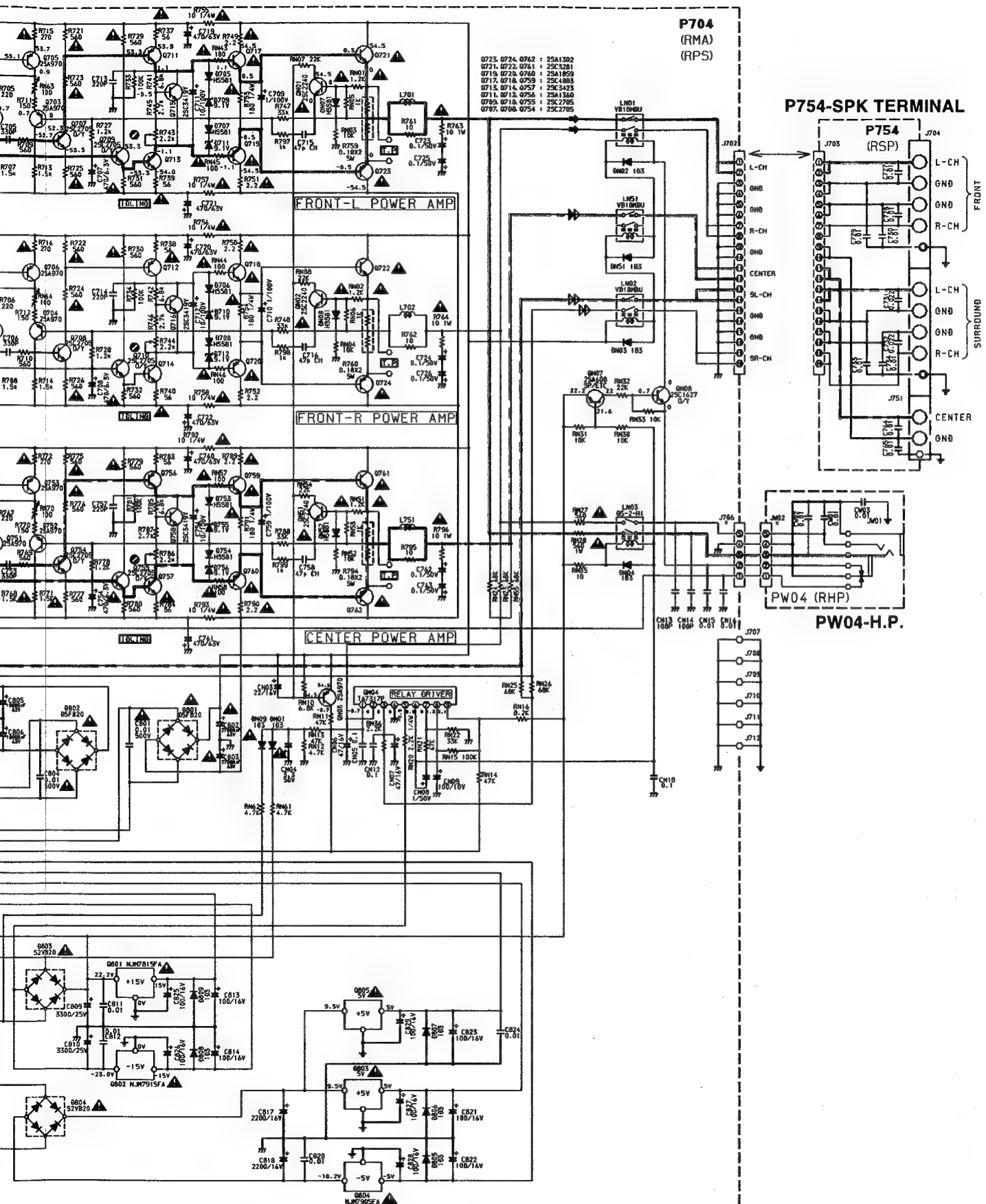
PB04-BACK-UP (AVR80) ONLY



P704-MAIN AMP (AVR80)



VR80) ONLY



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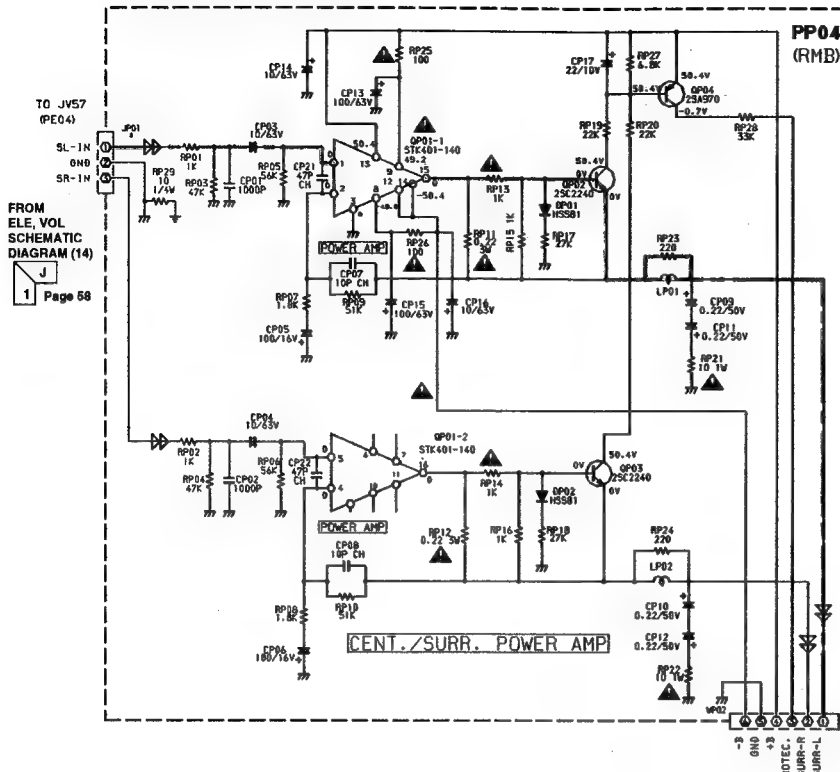
1



SCHEMATIC DIAGRAM (19) IB VERSION

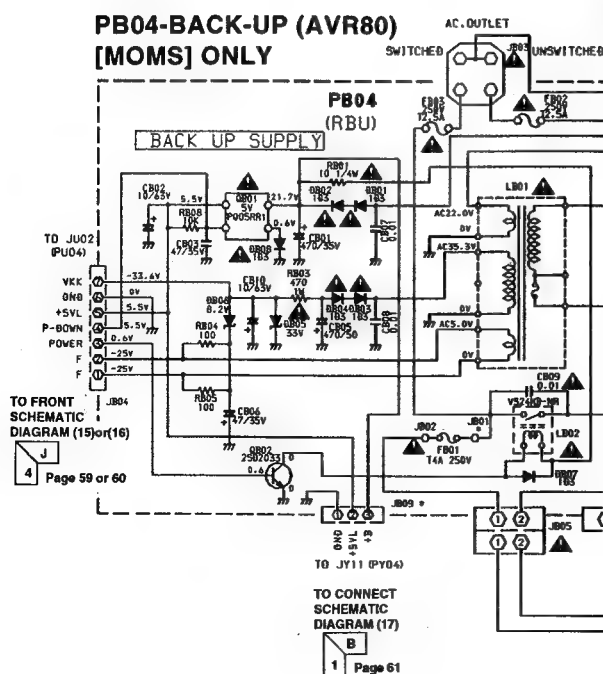
P704-MAIN AMP (AVR80) [

PP04-SURROUND AMP

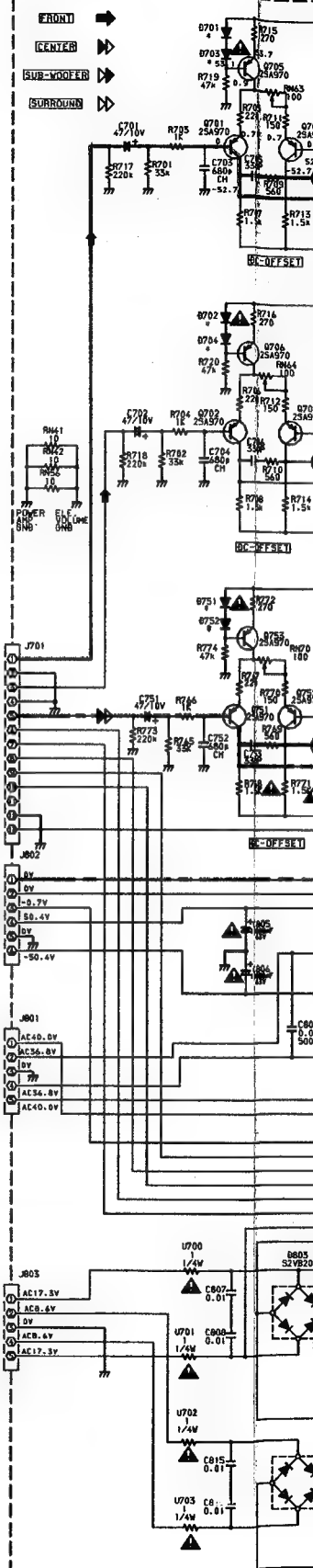
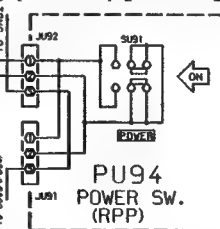


FROM
ELE. VOL
SCHEMATIC
DIAGRAM (14)
Page 58

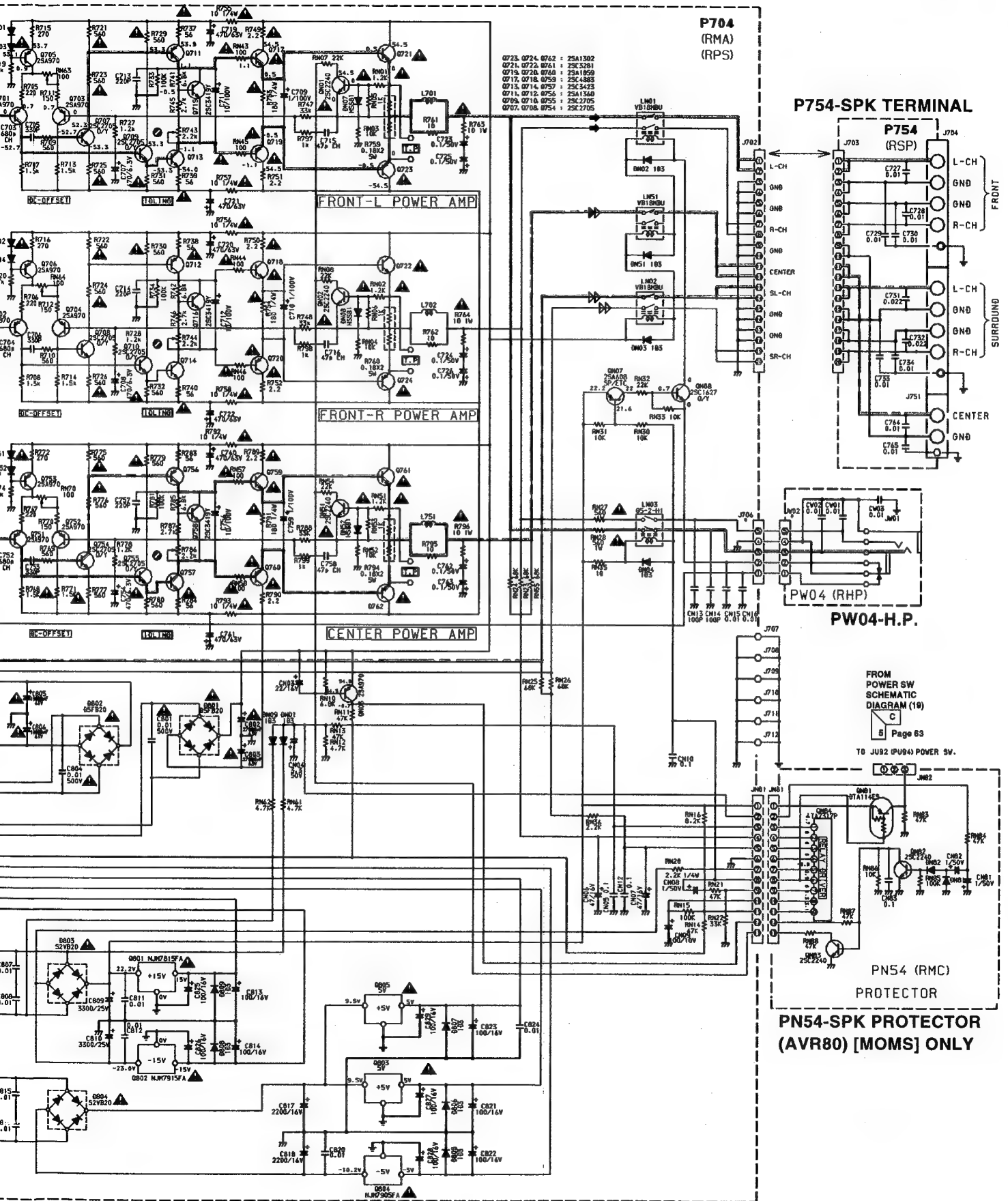
PB04-BACK-UP (AVR80) [MOMS] ONLY



PU94-POWER SW (AVR80) [MOMS] ONLY

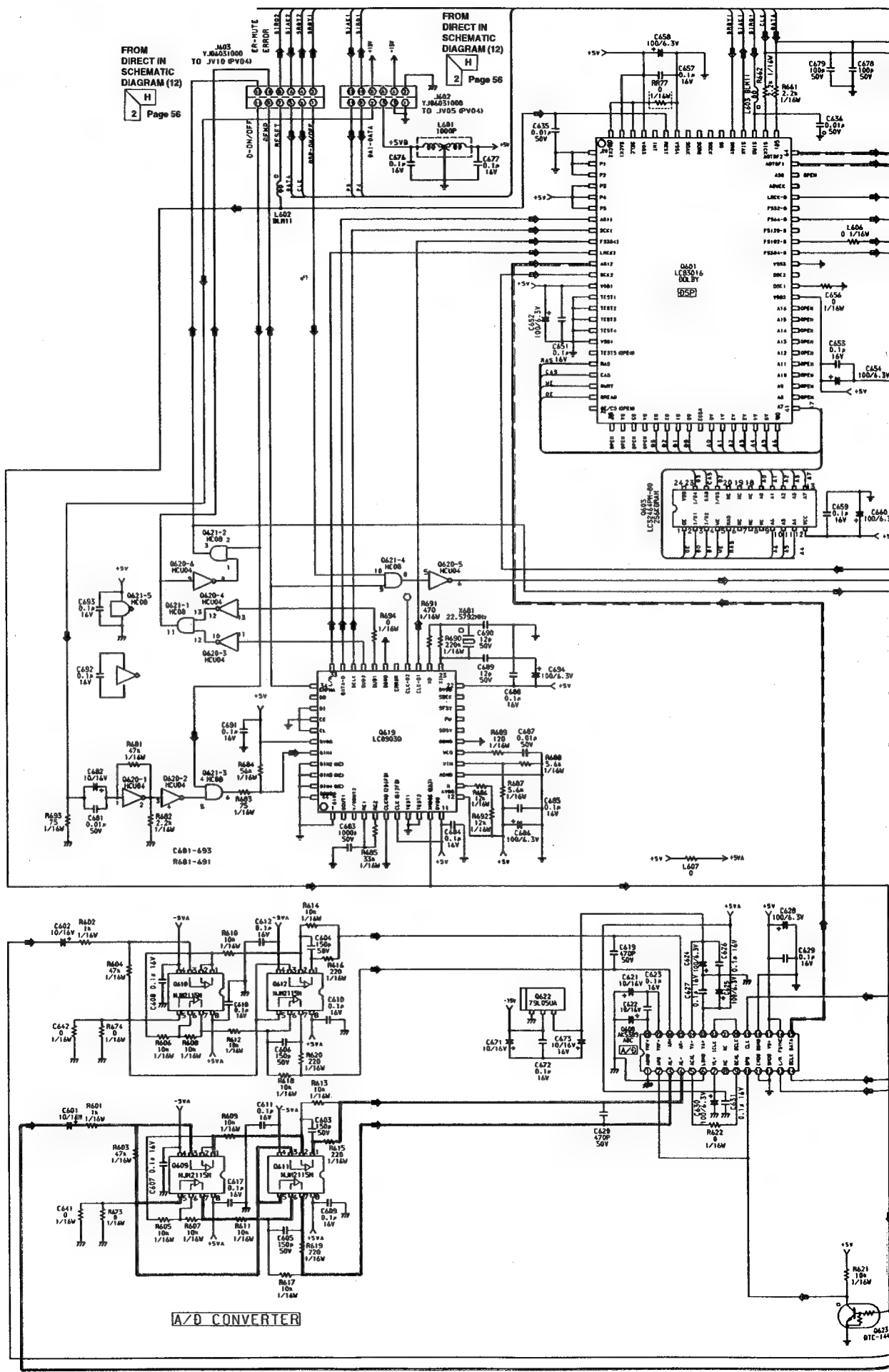


AVR80) [MOMS] ONLY



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A B C D E



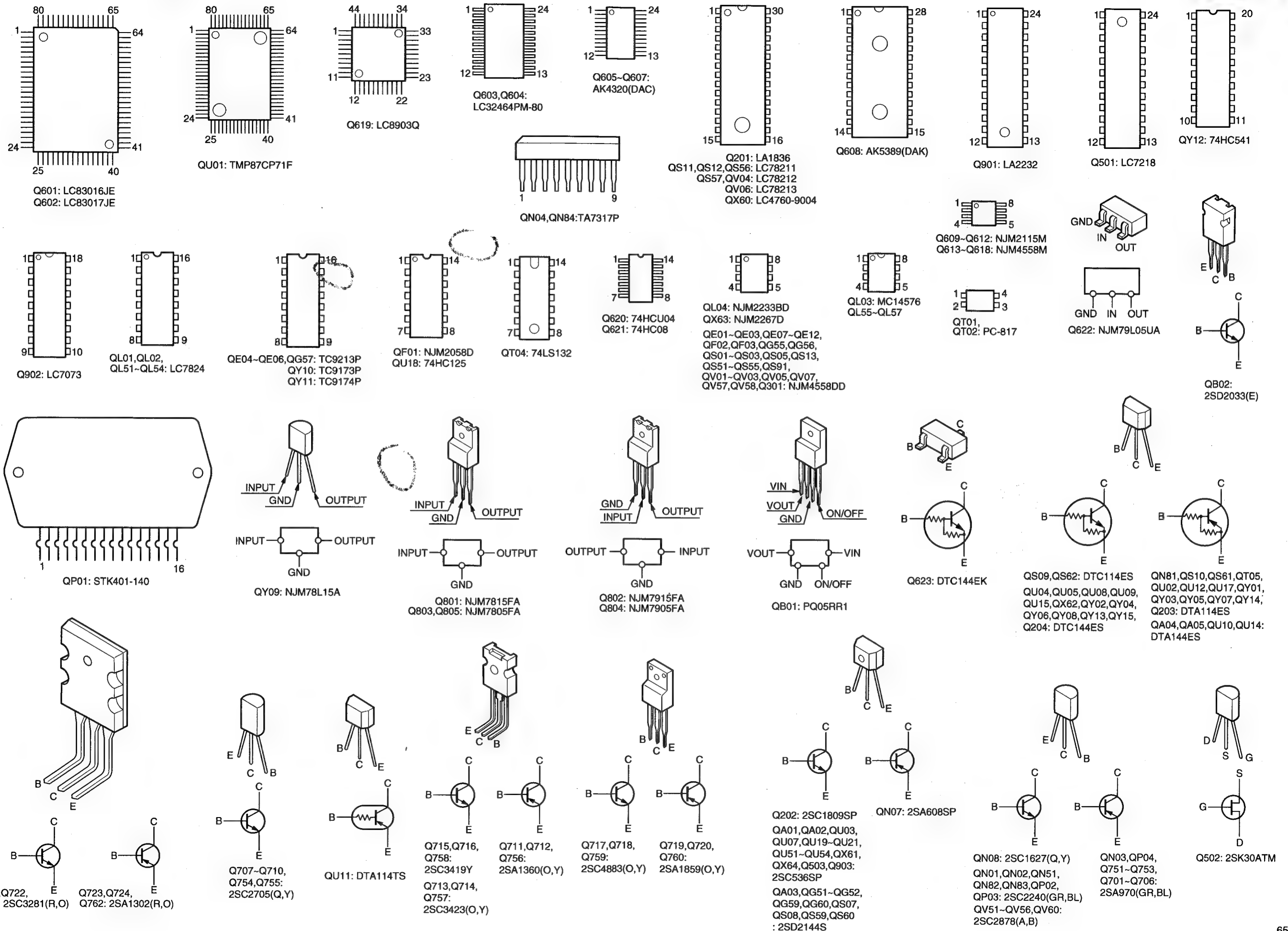
A/D CONVERTER

P604-THX PRO LOGIC DSP

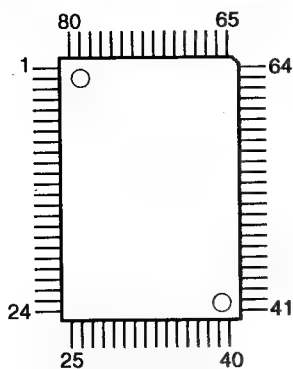


TO DIRECT IN
SCHEMATIC
DIAGRAM (11)

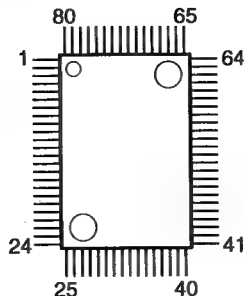
PIN CONNECTION DIAGRAM



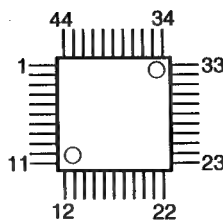
PIN CONNECTION DIAGRAM



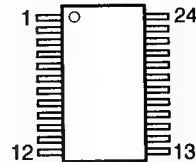
Q601: LC83016JE
Q602: LC83017JE



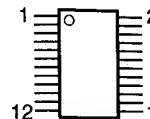
QU01: TMP87CP71F



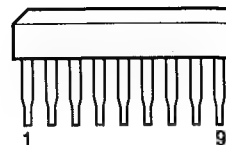
Q619: LC8903Q



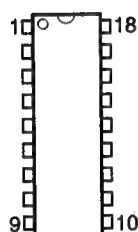
Q603, Q604:
LC32464PM-80



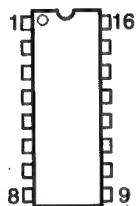
Q605-Q607:
AK4320(DAC)



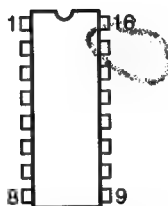
QN04, QN84: TA7317P



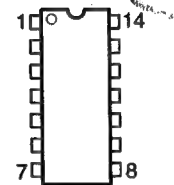
Q902: LC7073



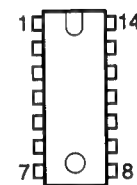
QL01, QL02,
QL51-Q154: LC7824



QE04-QE06, QG57: TC9213P
QY10: TC9173P
QY11: TC9174P



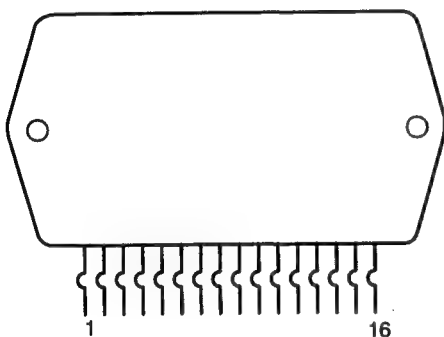
QF01: NJM2058D
QU18: 74HC125



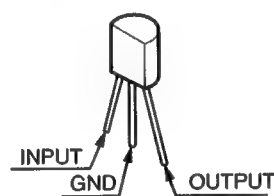
QT04: 74LS132



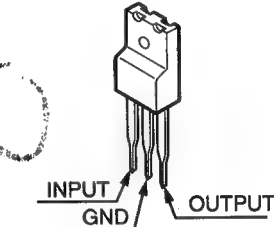
Q620: 74H
Q621: 74H



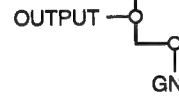
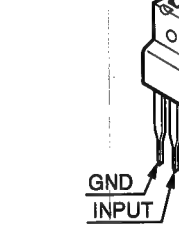
QP01: STK401-140



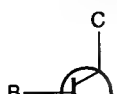
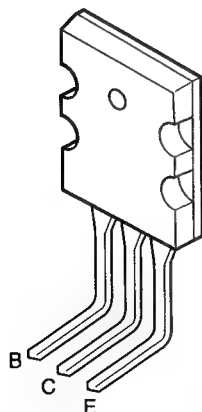
QY09: NJM78L15A



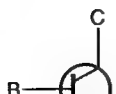
Q801: NJM7815FA
Q803, Q805: NJM7805FA



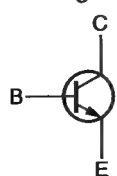
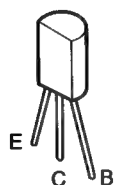
Q802: NJM
Q804: NJM



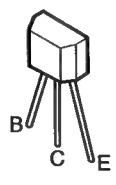
Q721, Q722,
Q761: 2SC3281(R,O)



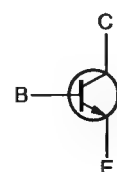
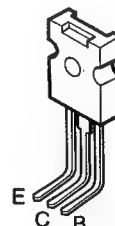
Q723, Q724,
Q762: 2SA1302(R,O)



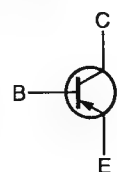
Q707-Q710,
Q754, Q755:
2SC2705(Q,Y)



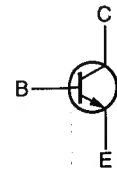
QU11: DTA114TS



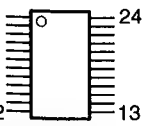
Q715, Q716,
Q758:
2SC3419Y
Q713, Q714,
Q757:
2SC3423(O,Y)



Q711, Q712,
Q756:
2SA1360(O,Y)



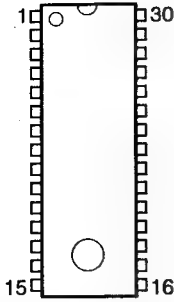
Q717, Q718,
Q759:
2SC4883(O,Y)



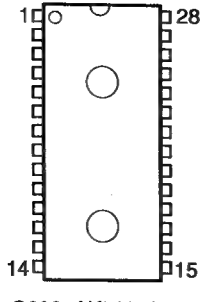
Q605~Q607:
AK4320(DAC)



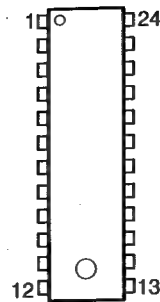
7317P



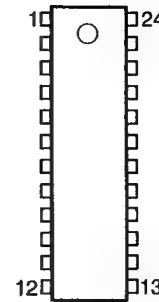
Q201: LA1836
QS11, QS12, QS56: LC78211
QS57, QV04: LC78212
QV06: LC78213
QX60: LC4760-9004



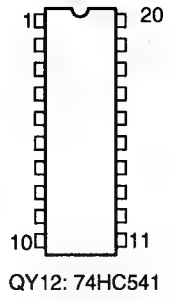
Q608: AK5389(DAK)



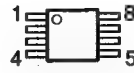
Q901: LA2232



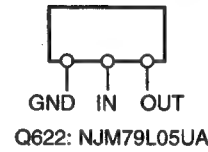
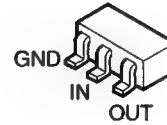
Q501: LC7218



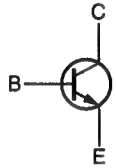
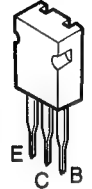
QY12: 74HC541



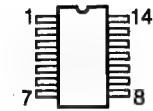
Q609~Q612: NJM2115M
Q613~Q618: NJM4558M



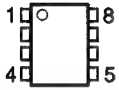
Q622: NJM79L05UA



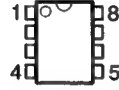
QB02:
2SD2033(E)



Q620: 74HCU04
Q621: 74HC08



QL04: NJM2233BD
QX63: NJM2267D

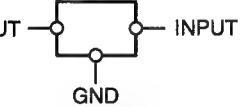
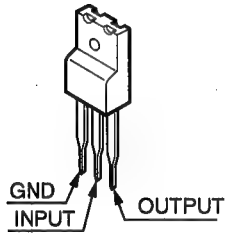


QL03: MC14576
QL55~QL57

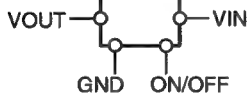
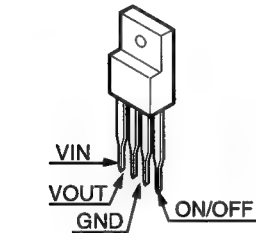


QT01,
QT02: PC-817

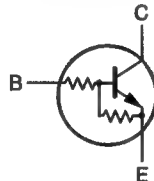
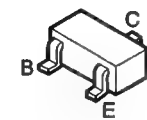
QE01~QE03, QE07~QE12,
QF02, QF03, QG55, QG56,
QS01~QS03, QS05, QS13,
QS51~QS55, QS91,
QV01~QV03, QV05, QV07,
QV57, QV58, Q301: NJM4558DD



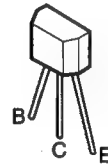
Q802: NJM7915FA
Q804: NJM7905FA



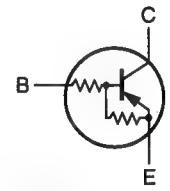
QB01: PQ05RR1



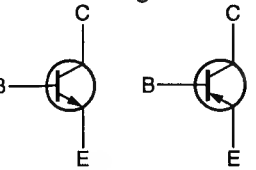
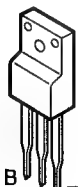
Q623: DTC144EK



QS09, QS62: DTC114ES
QU04, QU05, QU08, QU09,
QU15, QX62, QY02, QY04,
QY06, QY08, QY13, QY15,
Q204: DTC144ES

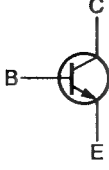
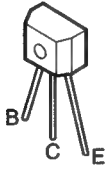


QN81, QS10, QS61, QT05,
QU02, QU12, QU17, QY01,
QY03, QY05, QY07, QY14,
Q203: DTA114ES
QA04, QA05, QU10, QU14:
DTA144ES

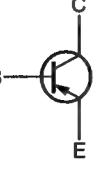


Q717, Q718,
Q759:
2SA4883(O,Y)

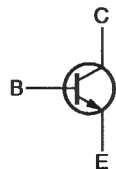
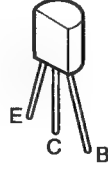
Q719, Q720,
Q760:
2SA1859(O,Y)



Q202: 2SC1809SP
QA01, QA02, QU03,
QU07, QU19~QU21,
QU51~QU54, QX61,
QX64, Q503, Q903:
2SC536SP
QA03, QG51~QG52,
QG59, QG60, QS07,
QS08, QS59, QS60
: 2SD2144S



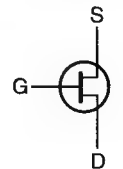
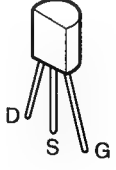
QN07: 2SA608SP



QN08: 2SC1627(Q,Y)
QN01, QN02, QN51,
QN82, QN83, QP02,
QP03: 2SC2240(GR,BL)
QV51~QV56, QV60:
2SC2878(A,B)

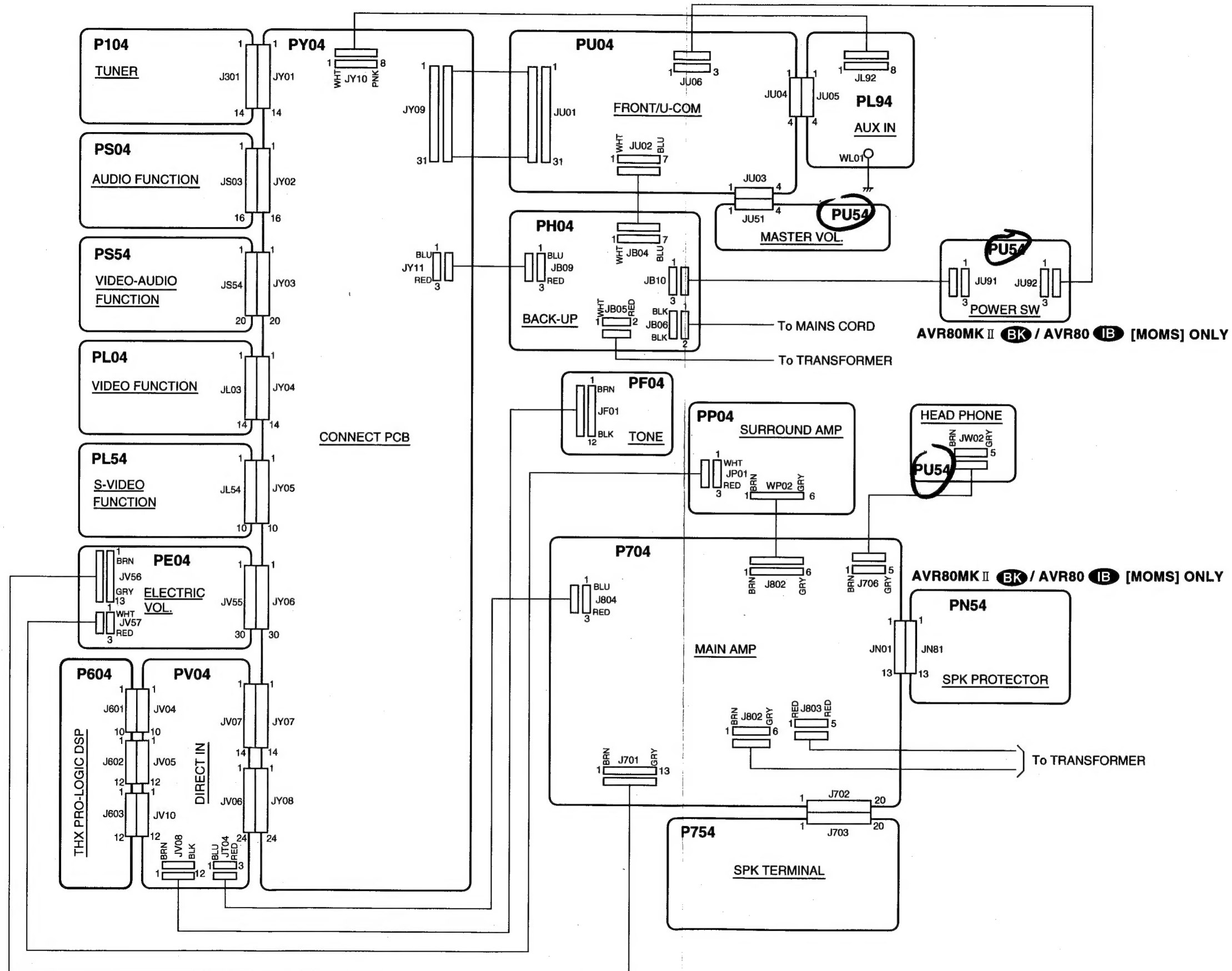


QN03, QP04,
Q751~Q753,
Q701~Q706:
2SA970(GR,BL)

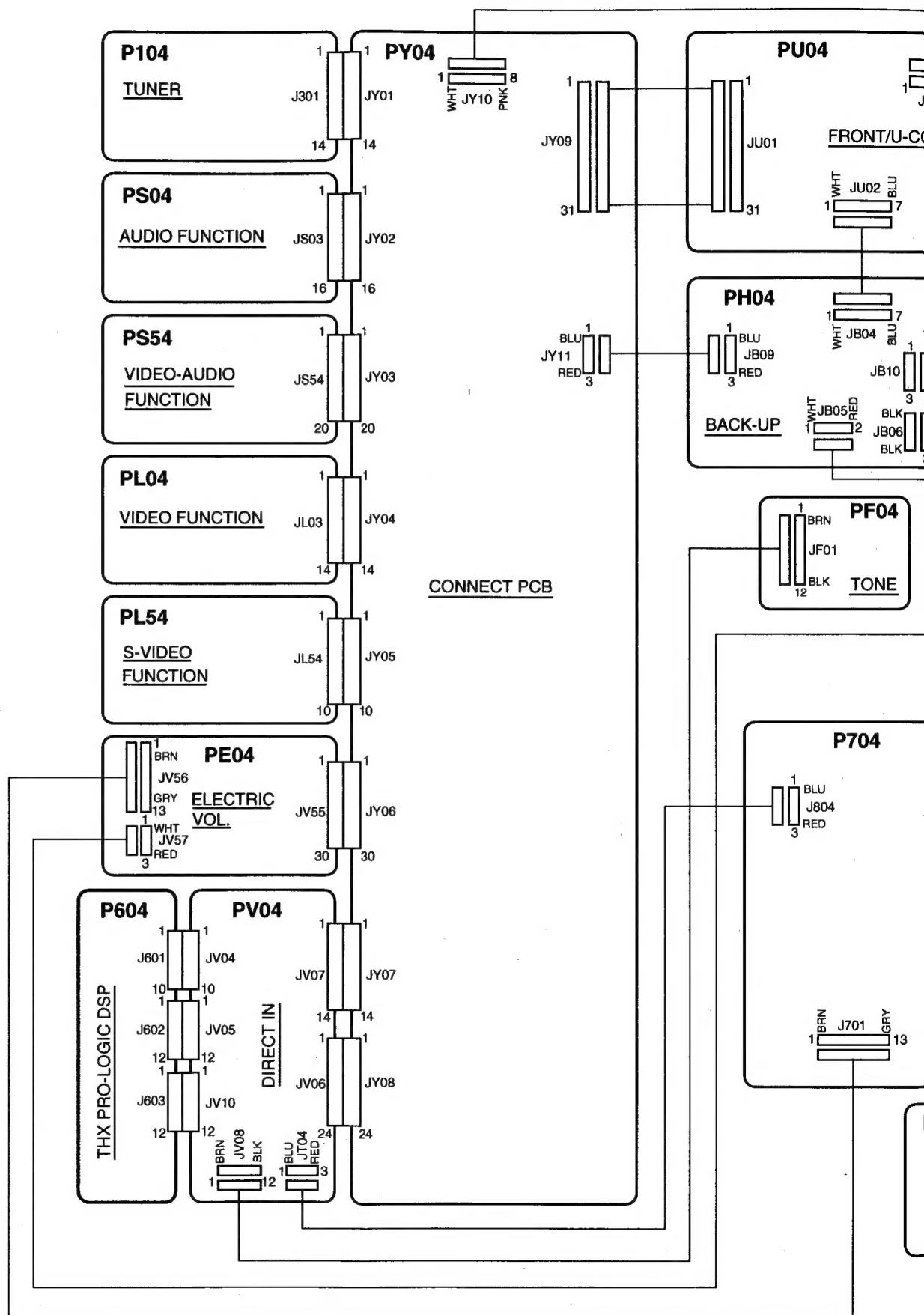


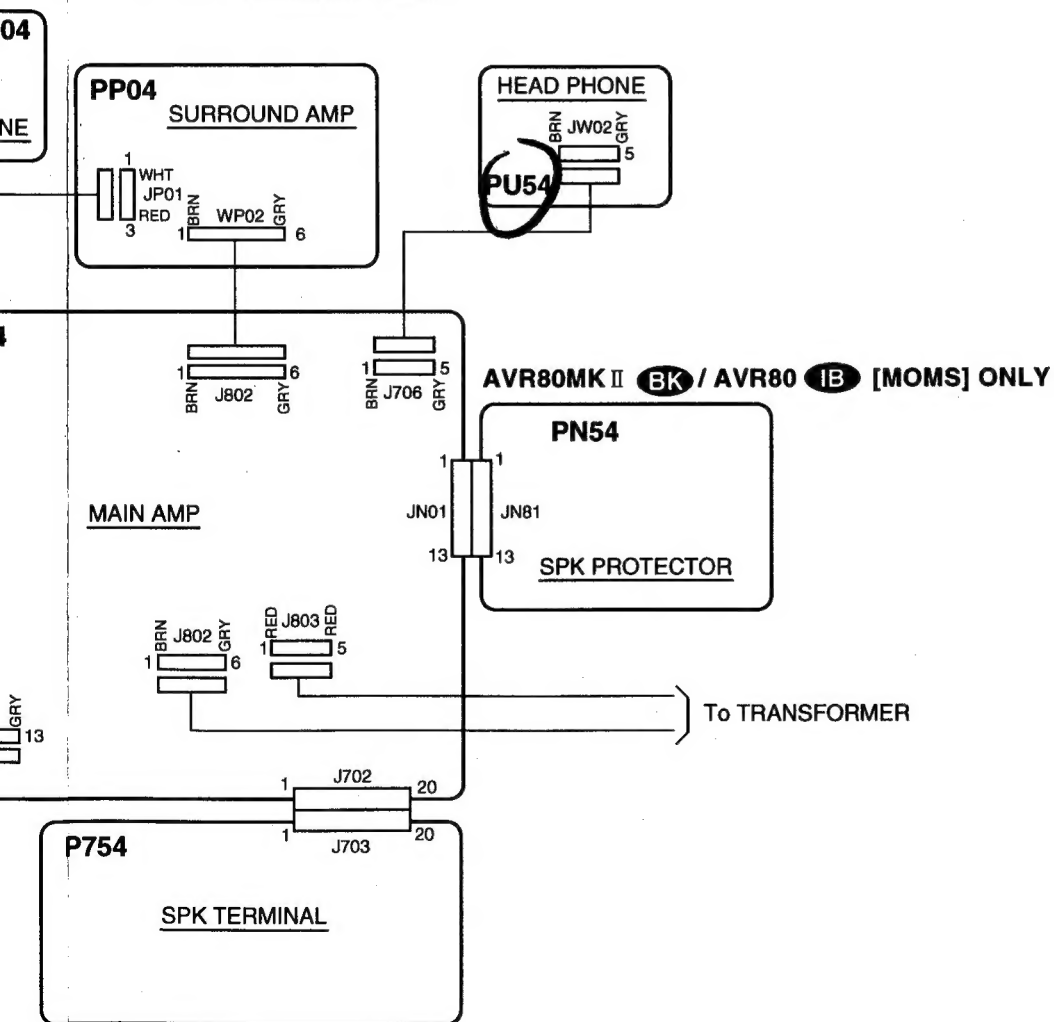
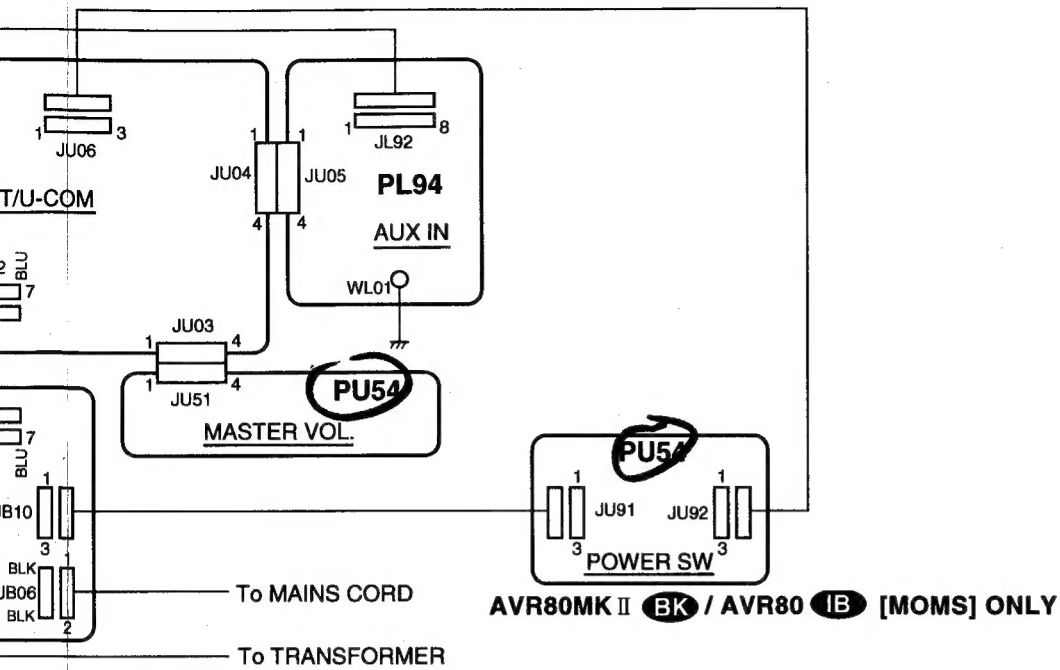
Q502: 2SK30ATM

WIRING DIAGRAM

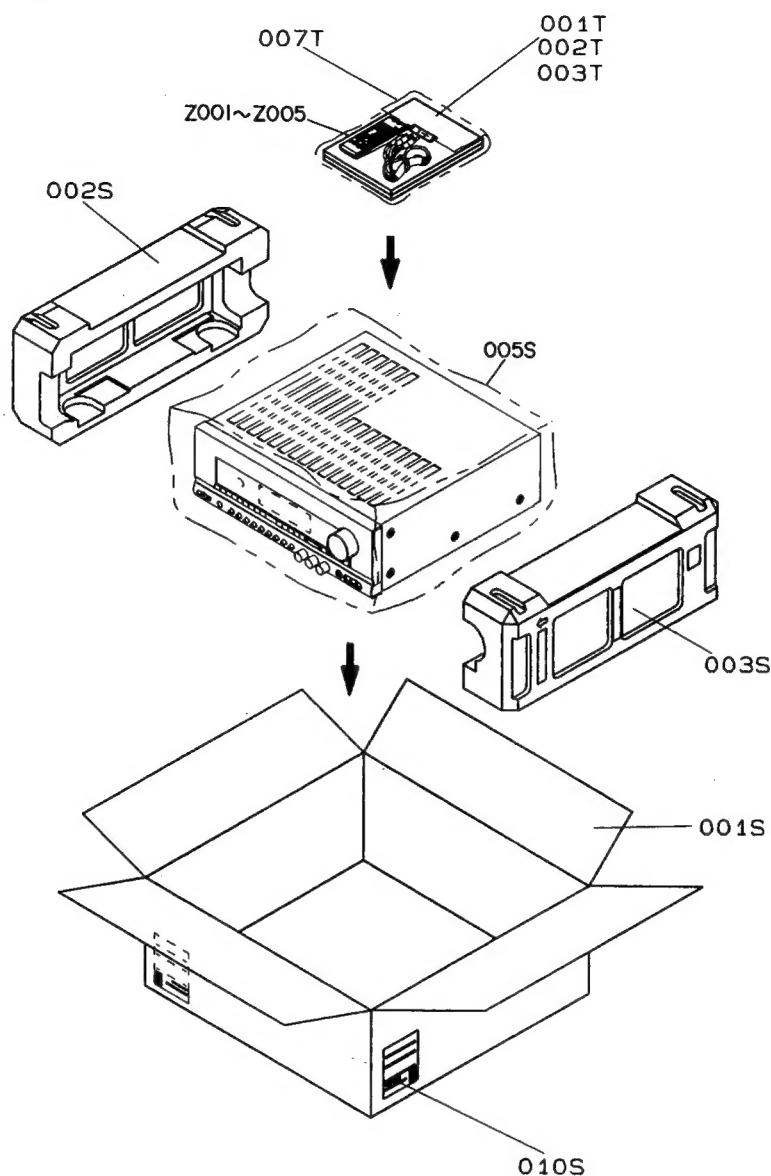


WIRING DIAGRAM





PACKING MATERIAL



Ref. No.	Part. No.	Description	Q'TY
001S	260J801010	PACKING CASE IB	1
001S	260J801020	PACKING CASE BK	1
002S	260J809010	CUSHION, (L)	1
003S	260J809020	CUSHION, (R)	1
005S	9091111030	POLYETHY SHEET	1
010S	9510901260	LABEL	2
001T	260J851310	USER MANUAL IB (AVR80)	1
001T	260J851360	USER MANUAL IB [MOMS]	1
001T	260J851250	USER MANUAL BK (AVR80)	1
001T	260J851260	USER MANUAL BK (AVR80MK II)	1
002T	260J854010	WARRANTY CARD BK	1
003T	260J865010	CARD BK	1
007T	9012540010	POLYETHY BAG	1
Z001	ZK260J0010	UNIT KIT, REMOTE IB	1
Z001	ZK260J0020	UNIT KIT, REMOTE BK	1
Z002	ZF24302000	BATTERY, UM-4NEPH x 2	1
Z003	ZA02800020	EXT. ANTENNA FM IB	1
Z003	ZA02800070	EXT. ANTENNA FM BK	1
Z004	LA00065020	ANT COIL	1
Z005	YP90000310	PLUG BK	1